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An Analysis of Army Hazardous Waste Disposal Cost Data

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Analyzing disposal data alone cannot provide all information the Army needs to effectively manage HW and associated costs. Data on waste generation are required before attempting to reduce costs by minimizing waste. Also, data covering longer periods must be analyzed to reveal trends not discovered in this first-time effort.

Recommendations are made for making Army HW databases more useful for tracking wastes and disposal costs. Also, an in-depth study is recommended to correlate DRMS disposal data with waste generation data to improve the Army's HW management abilities.

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FOREWORD

This study was conducted for Army Environmental Office, Office of the Chief of Engineers (OCE), under MIPR 1409, March 1989; Work Unit JX9, "Installation Commander's Support Tool for Hazardous Waste Disposal." The technical monitor was Saralynn Bunch, ENVR-EH.

The research was performed by the Environmental Division (EN) of the U.S. Army Construction Engineering Research Laboratory (USACERL). The principal investigator was Dr. Byung Kim. Appendix K and other portions of the report were provided by Life Systems, Inc., Cleveland, Ohio. Coauthors Dr. Roy H. Reuter, Rob T. Williams, and Charles R. Tanner are employees of Life Systems, Inc. Dr. Edward W. Novak is Acting Chief of EN. The USACERL technical editor was Gordon L. Cohen, Information Management Office.

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1 INTRODUCTION

Background

Effective Fiscal Year (FY) 90, funding for hazardous waste disposal was decentralized, requiring either U.S. Army Major Commands (MACOMs), Major Subordinate Commands (MSCs), or installations to assume the disposal costs of their hazardous wastes. In addition, installations can use disposal means other than the Defense Reutilization and Marketing Service (DRMS) if there is a justifiable reason. These changes are part of the Army's effort to minimize the generation of hazardous waste by including disposal costs with production/use costs.

Hazardous waste disposal costs are complicated by numerous factors, such as quantity and type of waste, timing, treatment, storage, and disposal (TSD) facility availability and costs, contracting procedures, and regulatory requirements. As they assume more responsibility for managing their own hazardous wastes, installation commanders, Army hazardous waste managers, and contracting personnel need reliable hazardous waste disposal cost information. The problem is that there is no readily available, completely accurate source of such information.

The Army's best existing records on hazardous waste disposal are found in the DRMS's database of Contractor Line Item Numbers (CLINs), which categorize hazardous waste on the basis of type, amount, container, and other factors. These records are valuable for establishing the foundations for a reliable disposal cost database, but their use is limited in their current form. Through the fault of no one, for example, many CLINs are vague or comprise multiple miscellaneous substances. The CLIN system is an attempt to create an orderly catalog of hazardous wastes, but the generation and disposal of waste is not by nature a standardized and orderly activity. Attempts to condense and fine-tune the CLIN system have resulted in the deletion or consolidation of many items. Consequently, certain CLINs no longer accurately represent the contents of certain packages of waste.

However, cost information is essential to make cost-effective and environmentally proactive hazardous waste management decisions. Therefore, it is necessary to analyze existing DRMS hazardous waste disposal cost data based on CLINs to understand how much money the Army has spent for hazardous waste disposal, how the costs were broken down, how effective DRMS Reutilization, Transfer, Donation, and Sales (RDTS) activities have been, and what factors affect the availability and cost of TSD services.

Objective

The objective of this study was to compile and analyze representative Army hazardous waste disposal cost data, and to provide this information and analysis to Army environmental program managers.

Approach

DRMS hazardous waste disposal contract data for FY88 were analyzed for each CLIN. The hazardous waste disposal data for TRADOC and FORSCOM installations were compared with that for AMC.* This distinction was made because AMC's activities (e.g., manufacture of munitions) lead it to produce the majority of Army-generated hazardous waste. AMC processes some of its hazardous waste through DRMS, but most of it is treated and disposed of by the AMC's contractors. The impact of disposal decentralization (and, therefore, this report) focuses on TRADOC and FORSCOM installations. In this report, AMC hazardous waste disposal data applies only to the wastes disposed of through DRMS. AMC data was provided for any additional insights it could offer.

In addition to CLIN records, reutilization, transfer, donation, and sales (RTDS) data from DRMS was also analyzed. This study also identified hazardous waste TSD facilities that may be available for use by the Army, and interviewed TSD facility personnel to determine how these companies set their rates. An analysis of the factors that influence disposal changes by commercial TSD facilities was prepared.

Scope

This report was based on the analysis of FY88 hazardous waste disposal cost data that the DRMS provided in FY89. No attempt was made to validate or alter the data. This cost data will be regarded as historical information and the direct use of this cost data for estimating future disposal costs was not recommended.

Mode of Technology Transfer

This report will be provided to Army Environmental Managers as a reference on hazardous waste disposal costs in FY88.

*TRADOC = U.S. Army Training and Doctrine Command; FORSCOM = U.S. Army Forces Command; AMC = U.S. Army Materiel Command.

2 ARMY HAZARDOUS WASTE DISPOSAL COST DATA

Database Analyses of Disposal Costs

Computerized hazardous waste cost data were provided by DRMS in two batches. The first batch included all Army-generated wastes from installations in the Continental United States (CONUS) for the first three quarters of FY88. The second batch consisted of data for the last quarter of FY88 and was provided after the initial analysis was completed. Cost data were separated into two files, depending on whether they were from AMC or non-AMC pickup points. Both of the resulting database files were then analyzed.

For the data for the first three quarters of FY88, cost and weight totals were evaluated for individual waste type by using values associated with the CLIN assigned by DRMS. A CLIN-by-CLIN analysis was then performed to determine the number of transactions by individual number, the maximum, minimum, and average unit cost of each CLIN; the total cost associated with each CLIN and the total weight of waste for each CLIN. Tables for the top 20 individual CLINs for both AMC and non-AMC installations* were identified based on the number of transactions, weight, and cost data. Using data for all of FY88, cost, quantity, and number-of-transaction summary tables were generated for hazardous waste categories of high interest and for the 22 DRMS categories shown in Appendix A, Table A1.

In addition to the computerized cost data, DRMS provided excerpts of all active waste disposal contracts for CONUS Army facilities. Many of these contracts also service non-Army activities (e.g., Air Force, Navy) because contracts are typically written to provide services to all Defense Reutilization and Marketing Offices (DRMOs) within a geographical area. Typical DRMS Requests for Proposals (RFPs) were also obtained and reviewed. Table 1 provides summary information on these contracts for FY88 through FY89. The estimated contract values listed in the tables are based on DRMS' initial estimated values and do not represent disposal costs actually incurred.

A review of DRMS disposal contracts confirms that the contracts are typically written for a base period of 1 year with an option period of either 1 year or 90 days. DRMS provided copies of pertinent information from all contracts providing disposal to Army installations (either totally or in part).

The estimated base period value of individual DRMS contracts was highly variable, ranging from a high of $2.9 million to a low of $15,000. The overall average base period contract value was just over $900,000. The number of CLINs per contract varied even more than the average contract value, ranging from 1 to 435. The overall average for CLINs per contract was 149.

The average contract value and average number of CLINs per contract were similar for both FY88 and FY89. The average contract value for FY88 was $917,696 (with an average of 146 CLINs); the average value for FY89 was $895,592 (with an average of 154 CLINs per contract).

The number of contracts awarded increased from 27 in FY88 to 42 in FY89. Firms that dominated the awards both years were GSX Government Services (with 15 contracts), Tricil Environmental Management, Inc. (8), and Chemical Waste Management, Inc. (11).

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*In this report, the term "non-AMC installations" refers to TRADOC and FORSCOM installations for purposes of brevity.

Table 1

DRMS Hazardous Waste Disposal Contracts
(Contract Start Dates 10/01/87 - 09/30/88)

Contractor	Contract No.	Contract Start Date	Option Period Length	Est. $ Value, Base Period	No. of CLINS
General Electric Company	DLA200-88-D-0063	11/24/87	1 Year	2,330,403	99
U.S. Pollution Control, Inc.	DLA200-88-D-0064	11/24/87	1 Year	226,262	132
North American Environmental	DLA200-88-D-0065	11/24/87	1 Year	142,126	33
U.S. Pollution Control, Inc.	DLA200-88-D-0038	04/22/88	1 Year	2,347,403	163
North American Environmental, Inc.	DLA200-88-D-0074	05/10/88	90 Days	596,472	33
MP Vacuum Truck Service, Inc.	DLA200-88-D-0078	05/17/88	90 Days	386,040	121
Underwood Industries, Inc.	DLA200-88-D-0041	05/23/88	90 Days	425,365	195
Northwest Enviroservice, Inc.	DLA200-88-D-0079	05/27/88	1 Year	1,924,308	277
Chemical Waste Management, Inc.	DLA200-88-D-0021	06/03/88	1 Year	560,400	151
Special Waste, Inc.	DLA200-88-D-0080	06/06/88	90 Days	496,530	165
Special Waste, Inc.	DLA200-88-D-0023	06/08/88	90 Days	366,645	174
National Electric, Inc./APTUS	DLA200-88-D-0022	06/16/88	90 Days	1,406,886	363
Chemical Waste Management, Inc.	DLA200-88-D-0024	07/01/88	90 Days	745,376	169
National Electric, Inc./APTUS	DLA200-88-D-0042	07/11/88	1 Year	2,100,096	435
Chemical Waste Management, Inc.	DLA200-88-D-0043	07/11/88	1 Year	764,565	72
U.S. Pollution Control, Inc./PPM	DLA200-88-D-0044	07/11/88	1 Year	309,890	36
ENSCO Environmental Services	DLA200-88-D-0045	07/11/88	1 Year	398,104	36
Chemical Waste Management, Inc.	DLA200-88-D-0025	07/28/88	90 Days	2,905,525	285
Special Waste, Incorporated	DLA200-88-D-0046	07/28/88	90 Days	1,468,602	174
Unitek Environmental Services, Inc.	DLA200-88-D-0081	08/09/88	90 Days	450,000	5
Northwest Enviroservice, Inc.	DLA200-88-D-0082	08/10/88	90 Days	910,769	145
GSX Government Services, Inc.	DLA200-88-D-0047	08/26/88	1 Year	876,325	201
Underwood Industries, Inc.	DLA200-88-D-0048	09/16/88	90 Days	359,097	212
Unitek Environmental Services, Inc.	DLA200-88-D-0083	09/19/88	90 Days	1,224,550	104
Chemical Waste Management, Inc.	DLA200-88-D-0050	09/29/88	90 Days	60,000	1
SLC Environmental Services, Inc.	DLA200-88-D-0051	09/29/88	90 Days	15,000	1
Northwest EnviroService, Inc.	DLA200-88-D-0086	09/29/88	90 Days	981,065	154
			Totals	24,777,804	3,936
			Averages	917,696	146

continued-

Table 1 (Cont'd)

(Contract Start Dates 10/01/88 - 09/30/89)

Contractor	Contract No.	Contract Start Date	Option Period Length	Est. $ Value, Base Period	No. of CLINS
Underwood Industries, Inc.	DLA200-89-D-0061	10/04/88	90 Days	498,780	163
GSX Government Services, Inc.	DLA200-88-D-0052	10/06/88	90 Days	439,100	141
Underwood Industries, Inc.	DLA200-89-D-0062	10/09/88	90 Days	1,165,607	185
Chemical Waste Management, Inc.	DLA200-89-D-0064	11/06/88	90 Days	875,405	252
Moheat, Inc.	DLA200-89-D-0063	11/07/88	90 Days	599,975	85
GSX Government Services, Inc.	DLA200-89-D-0031	11/21/88	1 Year	1,813,895	255
GSX Government Services, Inc.	DLA200-89-D-0032	11/22/88	90 Days	526,772	129
Underwood Industries, Inc.	DLA200-89-D-0065	12/06/88	90 Days	435,250	142
Chemical Waste Management, Inc.	DLA200-89-D-0033	12/10/88	90 Days	1,534,260	128
GSX Government Services, Inc.	DLA200-89-D-0066	12/16/88	90 Days	1,573,284	195
Tricil Environmental Management, Inc.	DLA200-89-D-0036	12/22/88	90 Days	938,037	224
Why Wastewater?, Inc.	DLA200-89-D-0002	12/23/88	90 Days	418,888	110
Unitek Environmental Services	DLA200-89-D-0003	01/14/89	90 Days	965,281	129
Northwest Enviroservice Inc.	DLA200-89-D-0004	01/17/89	1 Year	1,187,455	166
GSX Government Services, Inc.	DLA200-89-D-0034	01/17/89	1 Year	698,446	168
Tricil Environmental Management, Inc.	DLA200-89-D-0035	01/29/89	90 Days	807,972	138
GSX Government Services, Inc.	DLA200-89-D-0038	01/31/89	None	623,465	134
Chemical Waste Management, Inc.	DLA200-89-D-0039	02/25/89	1 Year	623,936	209
Tricil Environmental Management, Inc.	DLA200-89-D-0005	02/25/89	90 Days	204,572	61
CTA Environmental, Inc.	DLA200-89-D-0068	03/02/89	90 Days	455,522	108
TRICIL Environmental Management, Inc.	DLA200-89-D-0067	03/03/89	1 Year	939,159	202
GSX Government Services, Inc.	DLA200-89-D-0040	03/10/89	1 Year	989,733	169
Tricil Environmental Management, Inc.	DLA200-89-D-0007	03/13/89	1 Year	2,590,420	168
GSX Government Services, Inc.	DLA200-89-D-0006	03/17/89	90 Days	1,345,508	273
Tricil Environmental Management, Inc.	DLA200-89-D-0042	03/19/89	90 Days	1,453,941	138
GSX Environmental Services Inc.	DLA200-89-D-0043	03/31/89	90 Days	483,729	190
Safety Kleen Envirosystems Co. of Puerto Rico, Inc.	DLA200-89-D-0069	04/11/89	90 Days	79,250	5

continued-

Table 1 (Cont'd)

Contractor	Contract No.	Contract Start Date	Option Period Length	Est. $ Value, Base Period	No. of CLINS
GSX Government Services, Inc.	DLA200-89-D-0041	04/14/89	1 Year	642,838	144
GSX government Services, Inc.	DLA200-89-D-0044	04/24/89	90 Days	1,110,855	68
Chemical Waste Management, Inc.	DLA200-89-D-0008	05/01/89	1 Year	1,599,876	157
Chemical Waste Management, Inc.	DLA200-89-D-0045	05/14/89	90 Days	363,510	109
GSX Government Services, Inc.	DLA200-89-D-0009	05/16/89	90 Days	753,831	177
CTA Environmental, Inc.	DLA200-89-D-0010	06/27/89	1 Year	1,591,730	195
Chemical Waste Management Inc.	DLA200-89-D-0011	06/27/89	90 Days	627,650	138
Special Resource Management, Inc.	DLA200-89-D-0012	06/28/89	90 Days	272,268	145
GSX Government Services, Inc.	DLA200-89-D-0013	06/30/89	90 Days	2,205,172	230
Chem-Care, Inc.	DLA200-89-D-0048	07/14/89	90 Days	374,385	125
Tricil Environmental Management, Inc.	DLA200-89-D-0070	08/21/89	90 Days	549,830	162
American Environmental Services, Inc.	DLA200-89-D-0071	08/21/89	90 Days	973,616	143
GSX Government Services, Inc.	DLA200-89-D-0049	08/30/89	90 Days	344,179	140
Tricil Environmental Management, Inc.	DLA200-89-D-0072	09/14/89	1 Year	1,643,490	259
Terra First, Inc.	DLA200-89-D-0073	09/14/89	1 Year	294,000	1
			Totals	37,614,872	6,460
			Averages	895,592	154

(Contract Start Date After 10/01/89)

U.S. Ecology, Inc.	DLA200-89-D-0001	12/04/89	90 Days	743,286	24
			Overall Total (10/01/87 to date)	63,135,962	10,420
			Overall Average (10/01/87 to date)	901,942	149

No attempt was made to analyze contracts serving just Army installations because many provide combined service to Air Force, Navy, and Army facilities. Some contracts also include U.S. Army Corps of Engineers (USACE) civil works sites, U.S. Coast Guard bases, and other facilities.

There is no efficient mechanism for sorting waste generator (producer) data into specific installations, MACOMs, or MSCs because the waste generator is designated in the database only by its Department of Defense Activity Address Code (DODAAC), and each military unit has its own unique DODAAC. Most installations house many military units and, therefore, have many DODAACs. Conversely, a single DODAAC rarely covers an entire installation. Also, some DRMOs receive waste from installations other than the one on which they are located as well as non-Army installations. Therefore, it was necessary to search CLIN transaction records in the DRMS database, then sort them into separate files for AMC and non-AMC installations based on waste pickup locations.

A master CLIN List dated 30 August 1989, and a separate, undated list of PCB CLINs were obtained from DRMS (Appendix A, Tables A2 and A3). These lists are compiled by DRMS from the specific hazardous waste CLINs included in RFPs. The individual CLINs, some of which are very similar to each other in their descriptions, are grouped into 22 categories by DRMS. Based on input from MACOM and installation environmental personnel, six categories of particular interest were identified:

- Cleaning and degreasing solvents
- Metal plating wastes
- Batteries and battery electrolytes
- Sludges
- Used oil
- Paint stripping wastes.

The solvents category on the master list (CLINs 4500-5499) is a representative grouping of the Army's solvent wastes, so no special grouping of CLINs was necessary for solvents. The paint waste category (CLINs 3100 - 3399) was also considered representative and required no regrouping for this study. For the other four categories of waste, however, there was no standard CLIN list category or the category was incomplete. To generate complete information regarding the other categories of waste, special CLIN groupings were made. These groupings are listed in Appendices B through E. Appendix B lists the CLINs included in the metal plating waste category. Appendix C, the battery and battery electrolytes category, was formed by grouping the battery category CLINs (0500 - 0599) with CLIN 1333 for battery electrolyte (sulfuric acid), CLIN 1309 battery electrolyte (sulfuric acid), and CLIN 6102 batteries (magnesium). A broad category for sludges was created by including all CLINs on the master list containing the word "sludge" (Appendix D). A used-oil CLIN category was formed (Appendix E) by taking a subset of the CLINs in the master CLIN category of petroleum, oils, and lubricants (POLs) with contaminants. Cutting oils, sludges, and fuels were deleted from the master CLIN POL category.

Although the database entries are not certified by DRMS, the number of obvious entry errors appears to be small. No attempt was made to find or correct DRMS data entry errors, unless the error was obvious. Several miscodings of units are apparent in Appendices F and G. No attempt was made to change units to the master CLIN units because it would not improve accuracy of the data. Validation was almost impossible because it required going back to the generator's turn-in slip. Entry errors in unit cost or quantity would not be apparent, however, unless the number was excessively large. Therefore, no unit cost or quantity errors were identified. The objectives and general conclusions of this report do not appear to be compromised by data entry errors made by generators, DRMO, and DRMS.

Data for Non-AMC Installations

The average, minimum, and maximum costs, quantity, and unit of measure for each CLIN are listed in the Unit Cost Summaries table (Appendix F). Appendix F and Tables 2 through 8 were prepared using DRMS data for the first three quarters of FY88. Of the 566 CLINs listed, 63 had a cost range of at least $10.00 between the maximum and minimum unit cost (Table 2). The largest absolute cost range listed was for CLIN 5502 (spill residue, deleted), with a maximum of $600/drum and a minimum of $115.68/drum, for a difference of $484.32. These figures reflect actual costs in DRMS contracts. In an attempt to normalize the cost differences, the difference was divided by the average cost for each CLIN, resulting in a cost variability index. CLIN 6089 had the highest index value (82.54) for empty containers of 1 gal* or larger with less than 1 in. of residual waste. The CLINs with the next highest index values were 1201 (10.46 for 1 gal or larger containers with more than 1 in. of non-RCRA** wastes) and 6011 (10.08 for 1 gal or larger containers with more than 1 in. of RCRA wastes. Possible explanations for some of these large cost differences include variations in the government's estimated quantity (smaller estimated quantities of the same waste usually have a higher unit cost), the date of the contract period (contracts awarded more recently reflect the costs of more stringent disposal methods required for some waste types), and geographical differences (possibly indicating greater transport distances to disposal sites or varying state regulations). Another possible reason for higher cost variability of certain CLINs is that CLINs of miscellaneous content cover much or all of a waste category; in some cases the contractors may know or project that most of the waste disposed of under that CLIN will not be the worst-case (highest cost) waste, and bid accordingly; other contractors may bid cautiously and quote a worst-case unit bid price for that same CLIN.

More than half of the CLINs (33 out of 63) in Table 2 specify "each" as the unit. Also, 45 are containers and 51 have miscellaneous content. In Table 3, eight of the top 10 CLINs with the highest cost differences have miscellaneous content, and in Table 4, six of the CLINs are "miscellaneous." This confirms that contractors bid differently on miscellaneous CLINs.

The item with the most transactions was CLIN 1201 (as shown in Table 5, containers of 1 gal or larger with more than 1 in. of the wastes described in CLINs 0500 - 5999). Of the 11,000 plus non-AMC transactions reported, 2562 involved CLIN 1201—approximately 23 percent of the total. The item with the second largest number of transactions was 0501 (batteries, lithium-sulfurdioxide) with 554 transactions—about 5 percent of the total. The number of transactions involving individual CLINs decreased steadily after the top two. The 20th most frequent CLIN on the list had only 91 transactions. The top 20 CLINs accounted for 57 percent of all transactions; the other 546 CLINs accounted for the remaining 43 percent of the transactions.

Of the 20 most-transacted CLINs, 10 were also in the top 20 when ranked by total weight (Table 6). CLIN 3921 (oil contaminated with [but not limited to] dirt, water, diesel fuel, thinners, solvents, paint, ethylene glycol, turpentine, or gasoline) topped all CLINs by weight, and ranked 11th in number of transactions with 159.

*English measurement units are used throughout this report. A metric conversion table can be found on page 44.

**Resource Conservation and Recovery Act. Wastes governed by this U.S. Environmental Protection Agency (EPA) regulation are referred to as "RCRA wastes."

Table 2

CLINs With $10.00 or Greater Unit Disposal Cost Difference (Non-AMC Installations)

CLIN	Unit*	Maximum Cost, $	Minimum Cost, $	Cost Difference, $	Cost Variability, $[a]
0001	ea	30.00	10.00	20.00	0.97
0002	ea	25.00	0.00	25.00	7.29
0003	ea	16.33	1.81	14.52	1.31
0004	ea	16.33	0.00	16.33	1.42
0501	lb	16.00	0.05	15.95	3.06
1201	lb	16.00	0.00	16.00	10.46
1300	gl	18.00	0.05	17.95	2.85
1301	lb	15.00	3.00	12.00	2.22
1303	ea	12.00	0.72	11.28	2.37
1305	gl	16.00	0.50	15.50	5.42
1651	ea	15.00	3.62	11.38	1.04
1652	ea	15.00	3.62	11.38	1.11
1653	ea	15.00	1.00	14.00	1.65
1654	ea	15.00	.78	14.22	2.01
2000	ea	35.00	1.56	33.44	2.59
2001	ea	35.00	1.00	34.00	3.09
2002	ea	20.00	1.00	19.00	2.27
2003	ea	20.00	1.56	18.44	1.79
2003	lb	11.00	0.72	10.28	1.75
2005	gl	16.00	0.50	15.50	6.28
2300	ea	14.04	1.00	13.04	1.74
2300	gl	24.30	0.50	23.80	5.32
2301	ea	15.00	2.67	12.33	1.39
2301	lb	20.00	0.98	19.02	4.68
2302	ea	16.33	1.81	14.52	2.56
2303	ea	15.00	1.49	13.51	1.74
2305	gl	16.00	0.10	15.90	4.25
2805	gl	23.45	2.00	21.45	1.84
3100	ea	16.33	3.39	12.94	1.71
3100	gl	11.00	1.00	10.00	1.38
3105	gl	10.36	0.10	10.26	3.14
3106	lb	14.00	0.33	13.67	4.12
3305	gl	10.36	0.25	10.11	2.25
3400	ea	25.00	14.00	11.00	0.52
3401	ea	25.00	5.60	19.40	1.18
3401	lb	35.00	5.00	30.00	3.75
3402	ea	20.00	9.00	11.00	0.88
3403	ea	20.00	3.96	16.04	1.17
3405	gl	32.00	0.05	31.95	4.62
3411	gl	20.00	5.00	15.00	1.50
3902	ea	16.33	1.81	14.52	2.14
3905	gl	16.00	0.10	15.90	6.91
4203	ea	45.00	3.15	41.85	2.54

continued-

*ea = each; lb = pound; gl = gallon; dm = drum.
[a]This figure was calculated by dividing the cost difference by average cost. Average cost values were taken from Appendix F.

Table 2 (Cont'd)

CLIN	Unit*	Maximum Cost, $	Minimum Cost, $	Cost Difference, $	Cost Variability $[a]
4500	ea	30.00	3.31	26.69	2.44
4500	gl	36.00	0.50	35.50	2.98
4502	ea	45.00	6.22	38.78	2.41
4505	gl	16.00	0.10	15.90	3.87
4704	gl	16.00	0.05	15.95	2.16
4705	gl	16.00	0.10	15.90	2.43
4722	gl	12.00	0.10	11.90	1.61
5502	dm	600.00	115.68	484.32	2.05
5601	ea	16.33	4.74	11.59	0.80
5601	lb	12.19	.90	11.29	4.43
5602	ea	16.33	1.00	15.33	2.21
5603	ea	16.33	3.15	13.18	0.87
6000	ea	20.00	1.00	19.00	2.68
6001	ea	20.00	2.67	17.33	1.52
6002	ea	16.33	1.81	14.52	2.92
6003	ea	20.00	0.72	19.28	3.92
6005	gl	16.00	0.05	15.95	5.13
6011	lb	12.00	0.00	12.00	10.08
6012	gl	20.00	1.00	19.00	6.57
6089	lb	52.00	0.00	52.00	82.54

Table 3

Top Ten CLINs With Highest Disposal Cost Difference (Non-AMC Installations)

CLIN	Unit	Maximum Cost, $	Minimum Cost, $	Cost Difference, $	Cost Variability, $[b]
5502	dm	600.00	115.68	484.32	2.05
6089	lb	52.00	0.00	52.00	82.54
4203	ea	45.00	3.31	41.85	2.54
4502	ea	45.00	6.22	38.78	2.41
4500	gl	36.00	0.50	35.50	2.44
2001	ea	35.00	1.00	34.00	2.59
2000	ea	35.00	1.56	33.44	2.01
3405	gl	32.00	0.05	31.95	4.62
3401	lb	35.00	5.00	30.00	1.18
4500	ea	30.00	3.31	26.69	2.98

*dm = drum; lb = pound; ea = each; gl = gallon.
[a]This figure was calculated by dividing the cost difference by the average cost. Average cost values were taken from Appendix F.
[b]This figure was calculated by dividing the cost difference by the average cost. Average cost values were taken from Appendix G.

Table 4

CLINs With Highest Unit Disposal Cost (Non-AMC Installations)

CLIN	Unit*	Maximum Cost, $
5502	dm	600.00
0092	dm	528.59
2133	yd	195.00
0017	gl	76.29
6089	lb	52.00
4203	ea	45.00
4502	ea	45.00
4500	gl	36.00
2000	ea	35.00
2001	ea	35.00
3401	lb	35.00

*dm = drum; yd = cubic yard; gl = gallon; lb = pound; ea = each.

Table 5

Top 20 Most-Transacted CLINs (Non-AMC Installations)

CLIN	Supplies/Services	No. of Transactions	% of Total
1201	Containers, 1 gl or larger, with more than 1 in. of the wastes described in CLINs 0500-5999	2562	23.1
0501	Batteries, lithium-sulfur dioxide	554	5.0
6011	Containers, 1 gl or larger, with more than 1 in. of the wastes described in CLINs 6000-6500	368	3.3
6089	Containers, empty, 1 gl or larger with less than 1 in. of the wastes described in CLINs 0500-6500 (uncrushed or crushed)	325	2.9
0504	Batteries, mercury	272	2.5
2801	Medical items, misc. in containers less than 7 lb	252	2.3
3105	Paint, misc.	234	2.1
5500	Spill residues, misc. and/or debris, RCRA contaminated	196	1.8

continued-

Table 5 (Cont'd)

CLIN	Supplies/Services	No. of Transactions	% of Total
5601	Toxics, misc. in containers less than 7 lb	174	1.6
0106	Not listed on Master CLIN List	166	1.5
3921	Oil, may be contaminated with (but not limited to) dirt, water, diesel fuel, thinners, solvents, paint, ethylene glycol, turpentine, or gasoline	159	1.4
6033	Wood or debris with residual amounts of PCP, DDD, and/or DDE	148	1.3
6007	Asbestos and asbestos contaminated wastes	146	1.3
4505	Solvents, misc.	142	1.3
1309	Battery electrolyte (sulfuric acid)	126	1.1
2305	Ignitables, misc.	125	1.1
2300	Ignitables, misc., in containers less than 1 gl	111	1.0
0005	Acute hazardous waste, misc.	110	1.0
3905	POL, misc.	104	0.9
7012AH	Transformers, less than 50 ppm PCB	91	0.8

NOTE: PCP = pentachlorophenol; DDD = dichlorodiphenyldichloroethane; DDE = dichlorodiphenyldichloroethylene; POL = petroleum, oils, lubricants; PCB = polychlorinated biphenyl; PPM - parts per million.

Table 6

Top 20 CLINs in Weight (Non-AMC Installations)

CLIN	Supplies/Services	Total Weight/ CLIN (kg)[a]	% of Total
3921	Oil, may be contaminated with (but not limited to) dirt, water, diesel fuel, thinners, solvents, paint, ethylene glycol, turpentine, or gasoline	442,595	11.1
2133	Sludge, may be contaminated with (but not limited to) trivalent chrome, cadmium, heavy metals and metals	305,539	7.6

continued -

[a]kg = kilograms

Table 6 (Cont'd)

CLIN	Supplies/Services	CLIN (kg)	% of Total
3911	Oil/oil sludge from water separator or tank	286,862	7.2
6033	Wood or debris with residual amounts of PCP, DDD, and/or DDE	193,313	4.9
0106	Not listed on Master CLIN List	157,162	3.9
4720	Deleted - 4753	147,989	3.7
1201	Containers, 1 gl or larger, with more than 1 in. of the wastes described in CLINs 0500-5999	145,900	3.7
5500	Spill residues, misc. and/or debris, RCRA contaminated	118,366	3.0
4705	Paint removers	115,781	3.0
6089	Containers, empty, 1 gl or larger with less than 1 in. of the wastes described in CLINs 0500-6500 (uncrushed or crushed)	106,284	2.7
0501	Batteries, lithium-sulfur dioxide	90,034	2.3
3300	Paint wastes, may be contaminated with (but not limited to) oils, thinners, dirt, solvents, removers and strippers	87,087	2.2
0031	Not listed on Master CLIN List	84,368	2.1
5604	Toxics, misc.	82,264	2.0
3905	POL, misc.	74,021	1.9
3928	Petroleum fuels	68,158	1.7
1309	Battery electrolyte (sulfuric acid)	64,125	1.6
4742	Deleted - 3905	58,995	1.5
3918	Oil contaminated with water	49,466	1.2
3105	Paint, misc.	39,135	1.0

NOTE: PCP = pentachlorophenol; DDE = dichlorodiphenyldichloroethylene; DDD = dichlorodiphenyldichloroethane; POL = petroleum, oils, lubricants.

Table 7

Top 20 CLINs in Total Disposal Cost (Non-AMC Installations)

CLIN	Supplies/Services	Total Cost, $	% of Total
0501	Batteries, lithium-sulfur dioxide	588,614	12.7
1201	Containers, 1 gl or larger, with more than 1 in. of the wastes described in CLINs 0500-5999	572,583	12.3
4720	Deleted - 4753	347,524	7.5
3921	Oil, may be contaminated with (but not limited to) dirt, water, diesel fuel, thinners, solvents, paint, ethylene glycol, turpentine, or gasoline	218,488	4.7
0031	Not listed on Master CLIN List	186,010	4.0
6033	Wood or debris with residual amounts of PCP, DDD, and/or DDE	182,795	3.9
5500	Spill residues, misc. and/or debris, RCRA contaminated	158,393	3.4
3911	Oil/oil sludge from water separator or tank	148,169	3.2
6089	Containers, empty, 1 gl or larger with less than 1 in. of the wastes described in CLINs 0500-6500 (uncrushed or crushed)	120,311	2.6
3300	Paint wastes, may be contaminated with (but not limited to) oils, thinners, dirt, solvents, removers and strippers	106,563	2.3
6049	Decon agent, STB, less than 39% chlorine	90,596	2.0
0600	Compressed gas cylinders, misc.	81,566	1.8
2133	Sludge, may be contaminated with (but not limited to) trivalent chrome, cadmium, heavy metals, and metals	78,000	1.7
4705	Paint removers	72,328	1.6
5604	Toxics, misc.	55,602	1.2
4704	Solvents and thinners contaminated with (but not limited to) paint wastes	51,506	1.1
3905	POL, misc.	47,915	1.0
1309	Battery electrolyte (sulfuric acid)	45,851	1.0
3928	Petroleum fuels	43,616	0.9
7007	Transformers 500 ppm and over PCB	39,952	0.9

NOTE: PCP = pentachlorphenol; DDD = dichlorodiphenyldichloroethane; DDE = dichlorodiphenyldichloroethylene; STB = supertropical bleach; POL = petroleum, oils,

Table 8

Top 20 CLINs in Unit Disposal Cost (Non-AMC Installations)

CLIN	Supplies/Services	Unit Cost, $	Units[a]
5603	Deleted - 5601	130.63	kg
2303	Deleted - 2301	101.60	kg
2002	Deleted - 2000	79.83	kg
2003	Deleted - 2001	79.83	kg
6089	Containers, empty, 1 gal or larger with less than 1 in. of the wastes described in CLINs 0500-6500 (uncrushed or crushed)	23.59	kg
4203	Deleted - 4201	45.00	ea
4502	Deleted - 4500	45.00	ea
2000	EP toxic, misc. in containers less than 1 gal	35.00	ea
2001	EP toxic, misc. in containers less than 7 lb	35.00	ea
0001	Acute hazardous waste, misc. in containers less than 1 gal	30.00	ea
0151	Not listed on Master CLIN List	30.00	ea
4203	Deleted - 4201	30.00	ea
4500	Solvents, misc. in containers less than 1 gal	30.00	ea
0002	Acute hazardous waste, misc. in containers less than 7 lb	25.00	ea
3103	Deleted - 3101	25.00	ea
3400	Pesticides, misc. in containers less than 1 gal	25.00	ea
3401	Pesticides, misc. in containers less than 7 lb	25.00	ea
4200	Reactives, misc. in containers less than 1 gal	20.48	ea
3402	Deleted - 3400	20.00	ea
3403	Deleted - 3401	20.00	ea

[a]Costs given in kg have been converted from original units reported.
NOTE: EP = extraction procedure.

Table 7 lists the 20 CLINs with the highest total disposal costs. CLIN 0501 (batteries) tops this list at $588,614, and CLIN 1201 (containers) is second at $572,583. The top four on this list are also in the top 20 for total weight; eight on the list in Table 7 are also among the 20 most-transacted (disposed of) CLINs. Since the new lithium-sulfur dioxide batteries with a complete discharge device (CDD) will be disposed of with general trash,[1] the quantity of CLIN 0501 will be substantially reduced. The quantity of CLIN 6033 will also be reduced because PCP-treated wood is not defined as hazardous waste in the applicable EPA regulation that was recently finalized.[2] Although PCP ammunition boxes had been classified as special waste, not hazardous waste, most Army installations regarded it as hazardous waste. The Army needs to develop a guideline for installations on how to dispose of the PCP ammunition boxes. However, PCP is still a listed hazardous waste. It is recommended that each CLIN of high total disposal cost be studied in depth to evaluate the Army's opportunity to lower those costs.

Table 8 lists the individual CLINs with the highest disposal cost per unit. All CLINs having a specified weight or volume were converted to kilograms for comparison. For 15 of the top 20 CLINs, "each" is listed as the unit. No attempt was made to compare "each" CLINs to CLINs with specified weight units. Five of the top six CLINs had ounces as their unit in the database. It should be noted that some CLINs in the database are entered with more than one unit. Note in Appendix F, for example, that CLIN 0001 is listed with units of each, gallons and pounds. CLIN 2003 is recorded in the database with six different units: bottles, boxes, each, pounds, ounces, and tubes. This occurs because DRMS used different units for the same waste on different contracts it awarded.

Not all CLIN units in the database agree with the units for the same CLINs or the Master CLIN List. This occurs for the CLINs deleted from the Master CLIN List but still in the database. It was also possible that different units were used when the items were turned-in to DRMO by a generator. In the latter case, the Army generators are recommended to use the master CLIN units.

Data for AMC Installations

Data for the first three quarters of FY88 only were used to prepare Appendix G and Tables 9 through 12. Table 9 ranks the top 20 CLINs from AMC installations by number of transactions. The CLIN with the greatest number of transactions was CLIN 1201 (containers, 1 gal or larger, with more than 1 in. of the wastes described in CLINs 0500 - 5999) with 1698, or about 30 percent of AMC's transactions. The second most-transacted CLIN was 0002 (acute hazardous waste, miscellaneous, in containers less than 7 lb) with 207 or 3.7 percent of all transactions. The number of transactions for the top 20 CLINs in this category decreases significantly after the top item (CLIN 1201); the last 17 CLINs on the list each accounting for less than 2 percent of all of AMC's transactions.

Table 10 lists the top 20 CLINs from AMC installations by weight. The top 20 range in weight from over 1,000,000 kg for CLIN 6033 (wood or debris with residual amounts of PCP, DDD, and/or DDE) to 62,000 kg for CLIN 0016 (barium cyanide). The second-ranked item by weight, CLIN 6023 (oil, cutting), represents less than half the weight of the top ranked CLIN in this category.

The 20 CLINs with the highest total disposal costs are listed in Table 11. The costs listed range from $995,180 for CLIN 7007 (transformers, 500 parts per million [ppm] and over PCB) to $49,705 for CLIN 1660 (sodium hydroxide).

Table 12 lists the top 20 CLINs ranked by unit disposal cost. Unit costs range from $195.00/cu yd for disposal of CLIN 2133 (sludge) to $11.50/each for CLIN 4203 (miscellaneous reactives in containers less than 1 gal).

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[1] *Battery Disposition/Disposal Handbook* (U.S. Army Communications - Electronics Command [CECOM], 1989).
[2] 40 CFR Part 261, *Protection of the Environment; Identification and Listing of Hazardous Waste* (March 1990).

Table 9

Top 20 Most-Transacted CLINs (AMC Installations)

CLIN	Supplies/Services	No. of Transactions	% of Total
1201	Containers, 1 gl or larger, with more than 1 in. of the wastes described in CLINs 0500-5999	1698	31.1
0002	Acute hazardous waste, misc. in containers less than 7 lb	227	4.2
2004	EP toxics, misc.	143	2.6
1305	Corrosives acids, misc.	102	1.9
4505	Solvents, misc.	85	1.5
6011	Containers, 1 gl or larger, with more than 1 in. of the wastes described in CLINs 6000-6500	83	1.5
4704	Solvents and thinners contaminated with (but not limited to) paint wastes	75	1.4
2305	Ignitables, misc.	69	1.3
4722	Deleted - 4753	64	1.2
3418	Pentachlorophenol (PCP)	61	1.1
3309	Paint wastewater treatment sludge, may be contaminated with (but not limited to) paint, dirt and heavy metals	58	1.1
3300	Paint wastes, may be contaminated with (but not limited to) oils, thinners, dirt, solvents, removers and strippers	55	1.0
6089	Containers, empty, 1 gl or larger with less than 1 in. of the wastes described in CLINs 0500-6500 (uncrushed or crushed)	54	1.0
2301	Ignitables, misc. in containers less than 7 lb	52	0.1
6033	Wood or debris - with residual amounts of PCP, DDD, and/or DDE	51	0.09
2100	Blasting booth dusts/sandblast media with heavy metals	49	0.09
2300	Ignitables, misc. in containers less than 1 gal	48	0.09
4714	Trichloroethane, 1,1,1-, still bottoms	47	0.09
5500	Spill residues, misc. and/or debris, RCRA contaminated	47	0.09
6007	Asbestos and asbestos-contaminated wastes	46	0.08

NOTE: DDD = dichlorodiphenyldichloroethane; DDE = dichlorodiphenyldichloroethylene; EP = extraction process.

Table 10

Top 20 CLINs in Weight
(AMC Installations)

CLIN	Supplies/Services	Total Weight/ CLIN (kg)	% of Total
6033	Wood or debris with residual amounts of PCP, DDD, and/or DDE	1,178,249	36.0
6023	Oil, cutting	576,901	9.2
3915	Oil sludge	368,085	5.9
3936	Oil, may be contaminated with (but not limited to) heavy metals	262,726	4.2
2100	Blasting booth dusts/sandblast media with heavy metals	235,110	3.7
3418	Pentachlorophenol (PCP)	209,000	3.3
1201	Containers, 1 gl or larger, with more than 1 in. of the wastes described in CLINs 0500-5999	206,807	3.3
3921	Oil, may be contaminated with (but not limited to) dirt, water, diesel fuel, thinners, solvents, paint, ethylene glycol, turpentine and gasoline	176,138	2.8
3911	Oil/oil sludge from water separator or tank	142,258	2.7
2143	Agricultural blast (walnut shells) (in hopper)	132,721	2.1
4722	Deleted - 4753	114,328	1.8
4505	Solvents, misc.	113,314	1.8
1912	Alkaline solution, may be contaminated with (but not limited to) heavy metals	113,253	1.8
1660	Sodium hydroxide (caustic soda)	94,592	1.5
4705	Paint removers	90,632	1.4
4704	Solvents and thinners contaminated with (but not limited to) paint wastes	88,347	1.4
5500	Spill residues, misc. and/or debris, RCRA contaminated	85,706	1.3
0091	Not listed on Master CLIN List	70,120	1.1
4720	Deleted - 4753	66,278	1.0
0016	Barium cyanide	62,055	1.0

NOTE: PCP = pentachlorophenol; DDD = dichlorodiphenyldichloroethane; DDE = dichlorodiphenyldichloroethylene.

Table 11

Top 20 CLINs in Total Disposal Cost (AMC Installations)

CLIN	Supplies/Services	Total Cost, $	% of Total
7007	Transformers, 500 ppm and over PCB	995,180	17.3
1201	Containers, 1 gl or larger, with more than 1 inch of the wastes described in CLINs 0500-5999	800,209	13.9
6033	Wood or debris with residual amounts of PCP, DDD, and/or DDE	474,932	8.3
3936	Oil, may be contaminated with (but not limited to) heavy metals	416,700	7.2
3915	Oil sludge	238,719	4.2
6023	Oil, cutting	152,500	2.7
0091	Not listed on Master CLIN List	110,820	1.9
2100	Blasting booth dusts/sandblast media with heavy metals	99,119	1.7
3921	Oil, may be contaminated with (but not limited to) dirt, water, diesel fuel, thinners, solvents, paint, ethylene glycol, turpentine, or gasoline	98,228	1.7
3418	Pentachlorophenol (PCP)	96,761	1.7
4505	Solvents, misc.	94,490	1.6
4704	Solvents and thinners contaminated with (but not limited to) paint wastes	94,360	1.6
4722	Deleted - 4753	93,432	1.6
5500	Spill residues, misc. and/or debris, RCRA contaminated	85,684	1.5
4705	Paint removers	72,970	1.3
4504	Solvents, misc.	70,249	1.2
2004	EP toxics, misc.	55,650	1.0
1912	Alkaline solution, may be contaminated with (but not limited to) heavy metals	53,335	0.9
3911	Oil/oil sludge from water separator or tank	50,265	0.9
1660	Sodium hydroxide (caustic soda)	49,705	0.9

NOTE: PCP = pentachlorophenol; DDD = dichlorodiphenyldichloroethane; DDE = dichlorodiphenyldichloroethylene; EP = extraction process.

Table 12

Top 20 CLINs in Unit Disposal Cost (AMC Installations)

CLIN	Supplies/Services	Unit Cost, $	Units[a]
2133	Sludge, may be contaminated with (but not limited to) trivalent chrome, cadmium, heavy metals and metals	195.00	yd
5603	Deleted - 5601	130.63	kg
4503	Deleted - 4501	116.12	kg
0040	Not on Master CLIN List	100.00	ea
2302	Deleted - 2300	88.90	kg
2303	Deleted - 2301	88.90	kg
6003	Deleted - 6001	79.83	kg
0001	Acute hazardous waste, misc. in containers less than 1 gal	30.00	ea
4501	Solvents, misc. in containers less than 7 lb	25.50	ea
0002	Acute hazardous waste, misc. in containers less than 7 lb	18.00	ea
5602	Deleted - 5600	18.00	ea
5603	Deleted - 5601	18.00	ea
1651	Corrosive bases, misc. in containers less than 1 gal	16.33	ea
3700	Photography wastes, misc. in containers less than 1 gal	16.33	ea
4500	Solvents, misc. in containers less than 1 gal	16.33	ea
2303	Deleted - 2301	14.00	kt
4502	Deleted - 4500	13.50	ea
2301	Ignitables, misc. in containers less than 7 lb	12.20	ea
0004	Deleted - 0002	12.00	ea
4203	Deleted - 4201	11.50	ea

[a]Costs given in kg have been converted from original units reported.
NOTE: yd = cubic yard; kg = kilogram; ea = each; kt = kit.

The maximum, minimum, and average unit costs, quantities and units for individual CLINs are listed in Appendix G. This unit cost summary table allows cost comparisons based on the various quantities that may be specified in a disposal contract. For example, CLIN 0016 (barium cyanide) is listed in units of drums (dm), pounds (lb) and gallons (gl). Average unit costs for these quantities of CLIN 0016 were $0.18/dm, $0.18/lb and $3.00/gl. When these average unit costs are each converted to dollars/gallon they become $.003/gl (for drums), $1.50/gl (for pounds), and $3.00/gl, respectively.

Only CLINs 2301 and 0002 were found among both the top 20 CLINs for maximum unit cost (Table 12) and number of transactions (Table 9). Sixteen of the top 20 CLINs listed in Table 11 (total disposal costs per CLIN) are also among the top 20 CLINs by weight (Table 10), and eight of these are among the top 20 CLINs by number of transactions (Table 9). CLIN 7007 (PCB transformers), however, which has the highest total cost ($995,180), is not on the top 20 list for quantity, number of transactions, or unit cost.

Comparison of AMC and Non-AMC Disposal Data

Tables 13 and 14 examine hazardous waste category characteristics for both AMC and non-AMC database files for all of FY88. Table 13 includes the waste categories of particular interest to this study (except solvents and paint wastes, which are identical to the solvent and paint wastes categories in Table 14). Table 14 lists all of the CLIN categories found in Appendix A, Table A1.

The totals for categories with similar titles (batteries and metal plating) in Tables 13 and 14 differ because different CLINs are included in the respective categories of each table. The specific CLINs included in each category of Table 13 are listed in Appendices B, C, D, and E. Table 14 includes all of the hazardous waste data in the database files. Tables 13 and 14 are based on data from all four quarters of FY88.

The category figures in Table 13 have been totaled for comparison with the overall totals in Table 14. The six categories listed in Table 13 represent a considerable percentage of total waste disposal costs and volumes listed in Table 14. In Table 13, the highest total cost categories for non-AMC installations were batteries and solvents; the highest cost categories for AMC installations were paint wastes and solvents. In terms of quantity, solvents and used oil were the largest categories for non-AMC installations; paint wastes and solvents were the largest categories for AMC installations. It should be noted that Tables 13 and 14 reflect a very large amount of paint wastes turned in to DRMOs by AMC installations during the last quarter of FY88. This demonstrates why it is necessary to study waste disposal and generation data covering a significantly longer period of time: data from any given quarter can apparently change the overall totals dramatically.

This study is limited to analysis of data pertaining to waste disposal, but such information alone is not sufficient for fully developing cost-reduction strategies. Waste data must be tracked to (or collected from) the generators for a more complete picture of the issues involved. Also, it is recommended that DRMS disposal cost and quantity generation data covering a longer period of time be analyzed for trends that would not be apparent in just 1 year's worth of data.

There are some major differences in average unit costs both between categories and between AMC and non-AMC data for the same category. For both AMC and non-AMC installations in the Table 13 categories, batteries had the highest average unit disposal cost. As calculated from Table 13 (dividing mass by number of transactions), non-AMC installations disposed of smaller average quantities (mass) per

Table 13

Hazardous Waste Summaries for Six CLIN Categories of High Interest

Category	Non-AMC Pickup Points				AMC Pickup Points			
	Cost, $	Number Transactions	Mass, Kg	Cost, $ Per Kg	Cost, $	Number Transactions	Mass, Kg	Cost, $ Per Kg
Batteries	1,242,076	1982	287,160	4.33	30,667	120	13,780	2.23
Solvents	1,188,285	1121	928,096	1.28	1,379,594	1120	1,155,604	1.19
Metal Plating	811	16	1248	0.65	89,128	62	154,863	0.58
Used Oil	451,883	453	851,977	0.53	555,589	169	514,981	1.08
Sludge	289,368	34	649,258	0.45	651,593	199	843,159	0.77
Paint Wastes	217,918	671	235,826	0.92	5,888,131	3833	5,943,031	0.99
TOTALS	3,390,341	4277	2,683,565	1.26	8,594,702	5503	8,625,418	0.99
Percentage of Totals Listed in Table 14	51.2	27.4	45.8	-	58.8	43.5	56.0	-

Table 14

Hazardous Waste Summaries for All CLIN Categories

Category[a]	Non-AMC Pickup Points							AMC Pickup Points						
	Cost		Transactions		Weight		Unit Cost	Cost		Transactions		Weight		Unit Cost
	$	% of Total	Number	% of Total	Kg	% of Total	$/Kg	$	% of Total	Number	% of Total	Kg	% of Total	$/Kg
Acute Hazardous Waste	410,645	6.2	954	6.1	376,881	6.4	1.09	403,305	2.8	536	4.2	677,388	4.4	0.60
Batteries	1,164,726	17.6	1741	11.1	191,960	3.3	6.07	27,379	0.2	102	0.8	9820	0.1	2.79
Compressed Gas Cylinders	84,373	1.3	10	0.1	6782	0.1	12.44	2687	0	4	0	266	0	10.10
Containers	790,326	12.0	3830	24.5	285,756	4.9	2.77	1,173,152	8.0	2878	22.7	403,573	2.6	2.91
Corrosives - Acids	91,039	1.4	390	2.5	120,419	2.0	0.76	291,201	2.0	369	2.9	368,211	2.4	0.79
Corrosives - Bases	57,084	0.9	406	2.6	69,694	1.2	0.82	306,190	2.1	219	1.7	641,215	4.2	0.48
EP Toxic	327,665	5.0	476	3.0	757,954	12.9	0.43	703,142	4.8	714	5.6	1,099,850	7.1	0.64
Ignitables	110,531	1.7	842	5.4	135,612	2.3	0.82	55,567	0.4	455	3.6	61,983	0.4	0.90
Medical Items	11,540	0.2	439	2.8	2722	0	4.24	2045	0	11	0.1	208	0	9.83
Metal Plating/Metal Stripping	26,858	0.4	24	0.2	12,655	0.2	2.12	26,715	0.2	60	0.5	46,008	0.3	0.58
Paints	217,918	3.3	671	4.3	235,826	4.0	0.92	5,888,131	40.3	3833	30.3	5,943,031	38.6	0.99
Pesticides	61,460	0.9	151	1.0	86,215	1.5	0.71	213,478	1.5	195	1.5	373,174	2.4	0.57
Photography Wastes	15,885	0.2	133	0.9	19,239	0.3	0.83	4894	0	59	0.5	4798	0	1.02
POL	735,181	11.1	725	4.6	1,371,171	23.4	0.54	991,338	6.8	297	2.3	1,243,772	8.1	0.80
Reactives	8,970	0.1	84	0.5	2955	0.1	3.04	131,929	0.9	54	0.4	460,170	3.0	0.29
Solvents	1,188,285	18.0	1121	7.2	928,096	15.9	1.28	1,379,594	9.4	1120	8.8	1,155,604	7.5	1.19
Spill Residues	216,453	3.3	249	1.6	190,447	3.3	1.14	99,824	0.7	90	0.7	103,697	0.7	0.96
Toxics	95,669	1.4	562	3.6	120,681	2.1	0.79	8684	0.1	86	0.7	7430	0	1.17
Chemical Defense Equip. Kits	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-RCRA	738,797	11.2	2110	13.5	664,551	11.4	1.11	1,574,064	10.8	997	7.9	2,480,676	16.1	0.63
PCBs	263,416	4.0	712	4.6	275,191	4.7	0.96	1,326,335	9.1	583	4.6	327,141	2.1	4.05
Medical Items (non-RCRA)	0	0	0	0	0	0	0	2226	0	1	0	381	0	5.84
TOTALS	6,616,821	100.1[b]	15,630	100.1[b]	5,854,807	100.0	1.13	14,611,880	100.1[b]	12,663	99.8[b]	15,408,396	100.0	0.95

[a]The categories listed include those on the DRMS master CLIN list dated 08/30/89 and the PCB CLIN list (a single category).
[b]Not 100 percent because of roundoff imprecision.

transaction than AMC installations (627 kg/transaction for non-AMC vs 1567 kg/transaction for AMC) and paid larger average unit disposal costs than AMC installations ($1.26/kg for non-AMC vs $0.99/kg) for the six high-interest waste categories. Also, although the CLINs included in each category were the same for AMC and non-AMC, the distribution of waste among specific CLINs may have been significantly different for AMC and non-AMC wastes. This could impact the average unit costs used in comparisons.

From Table 14, the non-AMC categories with costs exceeding 10 percent of total disposal costs included solvents (18.0 percent), batteries (17.6 percent), containers (12.0 percent), POL (11.1 percent) and non-RCRA waste (11.2 percent). AMC categories with costs exceeding 10 percent of total disposal costs were paints (40.3 percent) and non-RCRA wastes (10.8 percent). Cost comparisons in Table 14 indicate considerably higher percentage of total costs for certain categories at non-AMC sites compared to AMC sites: acute hazardous waste (6.2 percent vs. 2.8 percent), batteries (17.6 percent vs. 0.2 percent), ignitables (1.7 percent vs. 0.4 percent), compressed gas cylinders (1.3 percent vs. 0.0 percent), spill residues (3.3 percent vs. 0.7 percent) and toxics (1.4 percent vs. 0.1 percent). AMC percentage-of-total costs were considerably higher than non-AMC for corrosives-bases (2.1 percent vs. 0.9 percent), paints (40.3 percent vs. 3.3 percent), and PCBs (9.1 percent vs. 4.0 percent).

Analysis of the percentages for the number-of-transactions figures also revealed major differences between AMC and non-AMC data. Non-AMC waste categories exceeding 10 percent of the total number of transactions include containers (24.5 percent), non-RCRA wastes (13.5 percent) and batteries (11.1 percent). AMC waste categories exceeding 10 percent included containers (22.7 percent) and paints (30.3 percent). Similar comparisons between the total weight percentages by category revealed the highest-weight AMC wastes to be paints (38.6 percent) and non-RCRA (16.1 percent); the highest-weight percentages for non-AMC wastes were POLs (23.4 percent), solvents (15.9 percent), and non-RCRA (11.4 percent).

Unit cost comparisons between similar non-AMC and AMC CLIN categories (Table 14) indicate some large differences in average disposal costs per kilogram for each. Unit costs were calculated for all CLIN transactions reported by weight or specified volume. CLINs reported with units of "each," bottle, box or tube were not included in the weight totals. Data for all CLINs (regardless of unit) were included in the cost and number of transaction totals. Therefore, the categories that were mostly reported in units other than weight or volume may appear to have higher unit disposal costs in Tables 13 and 14 because the unit cost per kilogram was calculated by dividing the total disposal cost by the total computed weight. The greatest discrepancies between non-AMC and AMC unit costs for the categories designated in Table 14 are for PCBs ($0.96/kg vs. $4.05/kg), batteries ($6.07/kg vs. $2.79/kg), medical items ($4.24/kg vs. $9.83/kg), metal plating and stripping wastes ($2.12/kg vs. $0.58/kg), and reactives ($3.04/kg vs. $0.29/kg). Differences in relative distribution of specific CLINs within the same categories for non-AMC wastes and AMC wastes may contribute to these discrepancies, as may differences in estimated amounts per contract. There are also major differences in average unit cost between non-AMC and AMC CLINs within the same DRMS waste category. This can be seen by comparing line items between Appendices F and G.

The highest unit costs in the non-AMC waste categories are for compressed gas cylinders ($12.44/kg), batteries ($6.07/kg), medical items ($4.24/kg), containers ($2.77/kg), reactives ($3.04/kg) and metal plating/metal stripping ($2.12/kg). The highest unit costs in the AMC waste categories are for compressed gas cylinders ($10.10/kg), containers ($2.91/kg), medical items ($9.83/kg), batteries ($2.79/kg), PCBs ($4.05/kg) and medical items (non-RCRA) ($5.84/kg).

Other important comparisons can be made between non-AMC and AMC waste data from Table 14.

- AMC data report substantially more of the following (in terms of weight) than non-AMC data: acute hazardous waste (677,388 kg vs. 376,881 kg), containers (403,573 kg vs. 285,756 kg), corrosives-acids (368,211 kg vs. 120,419 kg), corrosives-bases (641,215 kg vs. 69,694 kg), metal plating/metal stripping (46,008 kg vs. 12,655), paints (5,943,031 kg vs. 235,826 kg), pesticides (373,174 kg vs. 86,265 kg), reactives (460,170 kg vs. 2955 kg) and non-RCRA wastes (2,480,676 kg vs. 664,551 kg). The difference in the weight of paint wastes is the single greatest difference between AMC and non-AMC data.

- Non-AMC data report substantially more of the following items (in terms of weight) than AMC data: battery waste (191,960 kg vs. 9820 kg), spill residue waste (190,447 kg vs. 103,697 kg), photography waste (19,239 kg vs. 4798 kg), compressed gas cylinders (6782 kg vs. 266 kg), ignitable wastes (135,612 kg vs. 61,983 kg), medical items (2,722 kg vs. 208 kg), toxic wastes (120,681 kg vs. 7430 kg) and POL (1,371,121 kg vs. 1,243,172 kg).

- POLs, solvents, extraction process (EP) toxics, containers, and non-RCRA wastes contribute significantly to disposal costs at both AMC and non-AMC installations.

- Compressed gas cylinders and batteries are primarily non-AMC installation disposal problems.

- The overall average unit disposal cost is higher for non-AMC ($1.13/kg) wastes than for AMC wastes ($0.95/kg).

- The overall average weight per non-AMC transaction is 375 kg, compared to an overall average weight of 1217 kg for AMC transactions—a factor of about 3.2 times greater.

Table 15 illustrates cost variability *within* specific CLINs for AMC wastes. This comparison is based on data from the first three quarters of FY88. While non-AMC installations reported 63 CLINs with unit cost differences of at least $10.00, there were only 12 AMC CLINs with this cost difference. Miscellaneous CLINs and CLINs that included containers accounted for most of these items. For AMC data, 11 out of 12 CLINS and 7 of 12 CLINs, respectively, were miscellaneous wastes or containers. The amount of cost variability for AMC wastes was considerably smaller than for non-AMC wastes. Nine of the 10 non-AMC CLINs in Table 3 had unit cost variabilities of $30 or more, while only one CLIN in Table 15 had a unit cost variability of $30. The cost variability indices (the cost difference divided by the average cost) for the AMC wastes were also considerably smaller than the non-AMC wastes. CLIN 6004 (miscellaneous non-RCRA wastes) had the largest index (8.85) for AMC wastes.

In Table 16 (AMC) the three CLINs with the highest unit disposal costs have larger units (tons, yards, and drums). Similarly for non-AMC wastes in Table 4, the three CLINs with the highest unit disposal cost also have units of drums and yards.

There is little duplication of CLINs in the comparable AMC and non-AMC summary tables. Two of the same CLINs appear on Tables 4 and 16 for maximum unit disposal cost (2133 and 5502); three of the same CLINs appear on Tables 17 and 18 for highest average unit cost (2133, 5502, and 0001); only one CLIN, 4502, is on both Tables 3 and 19, the highest cost variability between maximum and minimum unit costs. It is unclear why more duplication of CLINs on these "top ten" lists did not occur. It is possible that the differences between estimated quantities for AMC and non-AMC contracts is a factor. Another possibility is that differences occur in CLINs between contracts serving AMC and non-AMC installations. This is reflected in differences of weights within the same CLINs (Tables 5 and 9) and differences in number of transactions per CLIN (Tables 4 and 8). There are few duplications.

Table 15

CLINs With $10.00 or Greater Unit Disposal Cost Difference (AMC Installations)

CLIN	Unit*	Maximum Cost, $	Minimum Cost, $	Cost Difference, $	Cost Difference Avg. Cost [a]
0001	ea	30.00	0.00	30.00	3.60
0002	dm	17.00	7.00	10.00	0.60
0002	ea	18.00	0.00	18.00	1.90
1305	gl	10.00	0.00	10.00	4.20
1651	ea	16.33	1.00	15.33	2.79
2305	gl	11.99	0.00	11.99	4.33
3105	gl	10.36	0.05	10.31	4.14
3305	gl	10.36	0.00	10.36	4.09
4502	ea	13.50	1.00	12.50	1.79
5602	ea	18.00	4.75	13.25	1.45
5603	ea	18.00	8.00	10.00	0.95
6004	lb	10.20	0.20	10.00	8.85

*ea = each; dm = drum; gl = gallons; lb = pounds.

[a]The average costs used in this calculation can be found in Appendix G.

Table 16

CLINS With Highest Unit Disposal Cost (AMC Installations)

CLIN	Unit*	Maximum Cost, $
0381	tn	315.00
2133	yd	195.00
5502	dm	162.00
5502	dm	150.00
0040	ea	100.00
0001	ea	30.00
4501	ea	25.50
5600	gm	25.00
0001	dm	20.00
2300	lb	20.00
2300	qt	20.00
3100	pt	20.00
0002	ea	18.00
5602	ea	18.00
5603	ea	18.00
5603	oz	18.00

*tn = ton; yd = yard; dm = drum; ea = each; gm = gram; lb = pound; qt = quart; pt = pint; oz = ounce.

Table 17

Top 10 CLINs With Highest Average Unit Disposal Cost (Non-AMC Installations)

CLIN	Unit*	Average Unit Cost, $
0092	dm	528.59
5502	dm	236.76
2133	yd	195.00
0017	gl	76.29
0151	ea	30.00
0002	ea	25.00
3103	ea	25.00
5600	pt	25.00
3400	ea	21.33
0001	ea	20.53

*dm = drum; yd = cubic yard; gl = gallon; ea = each; pt = pint.

Table 18

Top 10 CLINs With Highest Average Unit Disposal Cost (AMC Installations)

CLIN	Unit*	Average Unit Cost, $
0381	tn	315.00
2133	yd	195.00
5502	dm	162.00
0040	ea	100.00
4501	ea	25.50
5600	gm	25.00
0001	dm	20.00
2300	lb	20.00
2300	qt	20.00
3100	pt	20.00

*tn = ton; yd = yard; dm = drum; ea = each; gm = gram; lb = pound; qt = quart; pt = pint.

Looking at cost variability (Table 2) for non-AMC CLIN categories, pesticides (CLINs 3400 - 3699) and solvents (CLINs 4500 - 5499) had five and six CLINs, respectively, with unit cost differences of $10.00. No AMC CLIN category had more than two individual CLINs with unit cost differences of $10.00 (Table 15).

Tables 20 and 21 provide a list of CLINs that were included in the database but are not listed in the Master CLIN Lists provided by DRMS. They account for very little cost and do not alter the general conclusions about Army hazardous waste disposal. The items in these tables account for the differences between the totals of all categories in Table 14 and totals for the complete database.

Table 19

CLINs With Highest Disposal Difference (AMC Installations)

CLIN	Unit*	Maximum Cost, $	Minimum Cost, $	Cost Difference, $
0001	ea	30.00	0.00	30.00
0002	ea	18.00	0.00	18.00
1651	ea	16.33	1.00	15.33
5602	ea	18.00	4.75	13.25
4502	ea	13.50	1.00	12.50
2305	gl	11.99	0.00	11.99
3305	gl	10.36	0.00	10.36
3105	gl	10.36	0.05	10.31
0002	dm	17.00	7.00	10.00
1305	gl	10.00	0.00	10.00
5603	ea	18.00	8.00	10.00
6004	lb	10.20	0.20	10.00

*ea = each; gl = gallon; dm = drum; lb = pound.

Table 20

CLINs Not on Master CLIN List (Non-AMC Installations)

Contract No.	CLIN	Total Cost, $
DLA200-87-D-0052	1013	20.00
DLA200-87-D-0003	1063	1,746.00
DLA200-87-D-0038	1039	89.70
DLA200-87-D-0044	7128AL	1,170.00
DLA200-87-D-0044	7129AL	1,795.50
DLA200-87-D-0044	7129AL	654.50
DLA200-87-D-0044	7132AL	360.00
DLA200-87-D-0044	7132AN	1,635.00
DLA200-87-D-0044	7129AA	337.44
DLA200-87-D-0044	7129AA	323.75
DLA200-87-D-0029	6501	51.30
GRAND TOTAL		8,183.19

NOTE: These CLINs appear in the computerized DRMS database but not on the Master CLIN List.

Table 21

CLINs Not on Master CLIN List (AMC Installations)

Contract No.	CLIN	Total Cost, $
DLA200-87-D-0024	6810	115.00
DLA200-87-D-0044	7131	1.20
DLA200-87-D-0044	7128	.60
DLA200-87-D-0044	7131AJ	504.00
DLA200-87-D-0044	7131AJ	537.30
DLA200-87-D-0044	7131AJ	436.50
DLA200-87-D-0044	7128AJ	100.80
GRAND TOTAL		1,695.40

NOTE: These CLINs appear in the computerized DRMS database but not on the Master CLIN List.

3 HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

Locating TSD Facilities

A fundamental aspect of the Army's waste management decentralization is the identifying of contractors that installation waste managers can employ as an alternative to DRMS. Although many AMC installations have frequently used contractors to dispose of the special hazardous wastes associated with their Army mission, TRADOC and FORSCOM (non-AMC) installation waste management personnel may need guidance locating appropriate TSD facilities. The resources used in this research for contacting approved TSD facilities is summarized briefly below.

Every state has a department or office that regulates hazardous waste disposal. In this research, the hazardous materials offices of nine states were contacted and asked to provide listings of approved TSD contractors. States in which several TRADOC or FORSCOM installations are located were chosen: California, Texas, North Carolina, South Carolina, Virginia, Arkansas, Kentucky, and Oklahoma. Each state sent a list of TSD facilities or provided information about how to locate such facilities.

Directories of commercial TSD facilities were also consulted in this task:

- *Directory of Commercial Hazardous Waste Management Facilities*, National Technical Information Service (NTIS) EPA/530-SW-87-024, and
- *Hazardous Waste Services Directory* (J. J. Keller and Associates).

There are several other readily available sources of information about TSD facilities, including:

- *Industrial and Waste Management Firms*, Environmental Information Limited, 7400 Metro Blvd., Minneapolis, MN 55435.
- *Hazardous Waste Data Management System*, NTIS PB 88-914-300. This is an on-line database listing facilities required under RCRA to notify the U.S. Environmental Protection Agency (EPA) of hazardous wastes they handle.

Information provided in TSD directories generally includes a list of services provided (e.g., available treatment methods, transportation services, disposal methods). Directory entries also include point of contact, address and phone number of disposal site and business office, EPA permit numbers, and types of waste handled. Directories may also be cross referenced for easy use. By contrast, the TSD information provided by state offices for this research contained far less detail, usually only addresses, EPA permit numbers, and facility designation (i.e, treatment, storage, or disposal).

Analysis of TSD Facility Costs

In order to analyze the criteria used by TSD contractors to estimate disposal costs, a representative list of potential TSD contractors generally available and interested in Army hazardous waste (HW) disposal was compiled. A questionnaire was developed and used to collect information over the telephone and through personal interviews with facility managers and sales staffs. The questionnaire included both simple-answer questions (e.g., yes/no, multiple choice) and open-ended questions in which the respondent was asked for an opinion. A copy of the questionnaire is provided in Appendix H.

Interviews were sought with TSD facility contractors identified from the DRMS waste disposal bidder lists. Since the focus of this study was on TRADOC and FORSCOM rather than AMC, contractors were selected from states hosting several TRADOC or FORSCOM installations: California, Georgia, Hawaii, Kentucky, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Washington.

A list of the 26 TSD facilities that responded to the survey is included in Appendix I. Each of them is a current or potential contractor for Army HW disposal services. It should be noted that these 26 contractors actually represent more than 26 TSD locations since several firms have multiple locations or operations.

The report on the survey's findings contains both anecdotal information—qualitative, opinion-based data—and statistical information. Appendix J reprints the researchers' report of the survey's findings.

Survey Findings—Summary

Services Provided

The contractors surveyed handle a diverse range of waste types and offer numerous treatment and disposal techniques. Facilities that do not treat, store, or dispose of certain wastes due to permit limitations sometimes handle them through an approved subcontractor.

On-site treatment and disposal services available to installation waste program managers include fuel blending, decanting, neutralization, detonation, cylinder decommission, deep-well injection, land disposal, impoundment, containerization, reclamation, separation, incineration, solidification, chemical treatment, filtration, carbon adsorption, recycling, repackaging, volume reduction, consolidation, and fixation.

Many firms contacted have (or have applied for) HW transportation permits. Several that do not advertise transportation as a service maintain that they can provide it if necessary. Only a few specialty firms have the capabilities and permits for hauling radioactive materials, explosives, and certain medical wastes.

Disposal Price Trends

Over 96 percent of the firms surveyed reported cost increases in recent years. A common reason cited was increasingly stringent Federal regulations for the pretreatment of "hard hammer" wastes—those for which treatment before disposal is required by RCRA. Other factors cited included rising insurance premiums, higher landfill fees, and the rising cost of disposal for highly hazardous substances such as cyanide, dioxins, PCPs, radioactives, infectious medical wastes, heavy metal sludges, and explosives.

The average price increase estimated by respondents was 9.6 percent over the previous year. The average estimated price increase over the previous 3 years was 53 percent, and for the previous 5 years it was 112 percent. One firm that specializes in solvent recycling, however, reported a price decrease of 10 percent over the last 5 years due to significant advancements in solvent recycling technology. Moderation of price increases was reported for some wastes (e.g., clean, blendable, burnable liquids), and incineration cost increases have also slowed slightly due to technological advances. More stringent emission regulations and growing demand for incineration capacity, however, could spur more price increases.

General Issues in Waste Disposal Pricing

Survey respondents were asked to list major factors that help determine price. Solvent recyclers and fuel blenders cited water content and the percentage of solid impurities in waste fuels and solvents, due to the extra processing costs they cause. Deep-well injection contractors also stated similar concerns.

Other issues cited include

- chemical and physical properties of the waste
- the amount of transportation to disposal sites required
- analysis time and laboratory fees
- containers requiring repackaging
- client requests for unscheduled pickups, unusually frequent pickups, or pickup of small quantities.

Most firms interviewed did not quote a minimum fee per pickup, but several said it was impractical to do a job for less than $300 to $500.

Specific Factors in Waste Disposal Pricing

Survey respondents were asked to rate a number of variables (as major, moderate, or minor) for their degree of impact on pricing. The responses are reported in Table 22, expressed as a percentage of all responses. Appendix J includes a brief explanation or analysis for each item.

As can be seen in Table 22, the top five factors influencing pricing are

- type of waste
- Federal regulations
- waste concentration
- waste quantity
- material phase.

Table 22

Significance of Disposal Cost Factors

	Pricing Significance		
	Major	Moderate	Minor
Waste Quantity	60%	12%	28%
Type of Waste	96%	0%	4%
Transport Distance	28%	16%	56%
Material Phase (e.g., solid, liquid, sludge)	60%	20%	20%
Container Size	40%	20%	40%
Local Regulations	8%	12%	80%
State Regulations	40%	24%	36%
Federal Regulations	72%	12%	16%
Manner of Packaging	36%	24%	40%
Condition of Container	36%	16%	48%
Waste Concentration	72%	12%	16%

Surcharges

The firms surveyed reported that surcharges are commonly assessed for covering the costs of extra handling, special handling, and hidden expenses. Ways cited for clients to avoid common surcharges included segregating waste streams, prescheduling of service, and preanalysis of materials.

Surcharges are often imposed by fuel-blending TSDs for waste fuels with high content of water, chlorine, or solid impurities. Special toxicity problems spur surcharges to cover the cost of protective clothing and closed atmosphere breathing devices for workers, or sophisticated handling equipment.

Contracts

Most TSD contractors require some form of written agreement with the client. Regardless of what they are called, they all basically create a legally binding contract between contractor and client. Appendix L contains two representative service agreements (SAs) received from survey respondents.

In general, SAs contain clauses covering terms of payment, period of performance, insurance, cancellation, circumstances beyond control, confidentiality, governing law, ownership of waste, written notice between parties, pre-inspection and analysis, and indemnification.

Common indemnification clauses protect both contractor and client. Generally, client indemnification protects the contractor from any client breach of contract, negligence, or willful act or omission resulting in personal injury or death, property damage, or environmental harm. Contractor indemnification protects the client from losses due to the contractor's failure to comply with Federal, State, or local laws, and from any claim for loss or damage to property and person caused by the contractor's negligence or willful act or omission while performing its contractual obligations.

Some form of warranty was included in about 85 percent of SAs examined. In general, the warranties guarantee that the contractor

- has the necessary business, professional, and technical expertise to handle, store, transport, treat, and dispose of HW
- has the equipment, plant, and personnel required to perform
- has the ability and license to handle, store, transport, treat, and dispose of waste materials in full compliance with all laws
- will notify the client if any licenses, permits, or authorizations are lost or in jeopardy during the term of the agreement.

In general, most contractors surveyed said that DRMS RFPs were complicated and demanding compared to similar private sector contracts. DRMS frequently requests firm, fixed rates for hundreds of different wastes (CLINs) based on estimated totals (which may not be realistic) over the life of the contract. Many respondents perceived undue hardships in meeting DRMS standards for documentation and recordkeeping, and cited complex paperwork as a major difference between DRMS and private sector contracts. Although interested in bidding on Army contracts, most of those surveyed said contracting with the Government would require them to add services, and, therefore, increase costs for staffing and general overhead. DRMS is continuing to change and improve its RFP and contract language in an attempt to increase competition and protect the government while being fair to the contractors.

Additional information about SAs can be found in Appendix J, and two SAs are reproduced in Appendix K.

4 RTDS DATA FOR HAZARDOUS WASTE AND MATERIALS

An Integrated Disposal Management System (IDMS) transaction history extract covering all Army transactions for FY87 and FY88 was obtained from DRMS to analyze reutilization, transfer, donation, and sales (RTDS) data. Included for both fiscal years were separate printouts for hazardous materials (HM) receipts, sales, and issues by DRMO, and hazardous waste receipts by DRMO.* Table 23 summarizes the data by number of transactions and dollar value. It should be noted that the dollar value was based on the virgin material price.

In all categories there were increases in FY88 over FY87. When hazardous materials sales and issues are combined (in terms of number of items and composite dollar value) and compared to hazardous materials receipts, the percentages are large, implying that DRMS sells or reissues most of what it receives (Table 24). However, further research is required to analyze the Army's actual benefit from RTDS activities because the data did not include any detail and the dollar values were based on virgin hazardous material prices rather than actual price.

An analysis of the data in Table 24 indicates that the dollar value of sales and issues is substantially higher than the corresponding percentages based on number of items. One possible explanation for this discrepancy is the fact that sales figures represent actual amounts while HM prices are estimates provided by whoever turns in the material. Since there is necessarily a passage of time between when an item is received and when it is sold or issued, a comparison of FY88 issues and sales to FY87 receipts was also made and included in Table 24. The percentages for this comparison are higher than for the same-year comparisons.

Because the data are limited, one can make only very general and tentative conclusions. The data indicate more DRMS activity in FY88 than in FY87 in receipts of both HW and HM, and sales and issues of HM. Because of the time that necessarily passes between receipts and sales and issues, however, it cannot be concluded that DRMS was more effective in selling and issuing HM in FY88 than in FY87. Because of the uncertainty about the real value of HM receipts, it is probably better to assess sales/issue efficiency based on the numbers of items sold and issued rather than on dollar value of these items.

A spot check of six DRMOs was made to discover whether specific items reported as received were subsequently reported as sold or issued. None of the items sold or issued in FY88 had the same designation as items received in FY88 or FY87. This raises questions about the validity of the IDMS data: it cannot be considered accurate enough for the purposes of this research.

The reported price information for HM and HW receipts is also questionable because the organization turning in the HM assigns the price—DRMO only questions prices that appear to be obviously estimated too high or too low. No check of current item prices is made by the DRMO or DRMS, and apparent errors sometimes find their way into the database. In FY88, for example, six items turned in at the Fort Bragg DRMO reportedly were valued in error at $131,276,400. These items were numbered 010363495, 010946536, and 010342239, all in Federal Stock Class 6135 —nonrechargeable batteries. The current catalog price of each of these items (to the nearest dollar) is $50, $18, and $31, respectively. A DRMS staff member identified these entries as a probable input error made at DRMS. If the $131 million is assumed to be an error and subtracted from the FY88 HW dollar value, the FY88 total becomes $19 million instead of $150 million. This appears to be a

*DRMS data refers to both "hazardous materials" and "hazardous waste." HM refers to materials classified as hazardous by the U.S. Department of Transportation; HW refers to waste classified as hazardous by the EPA. The original DRMS terminology, although not used previously in this report, is preserved to be consistent with the DRMS source data.

Table 23

DRMS IDMS Summary for Army

	No. Items	$ Value in Millions
HM RECEIPTS		
FY88	32,153	56.6
FY87	28,515	51.2
HM SALES		
FY88	12,676	39.5
FY87	8517	30.5
HM ISSUES		
FY88	4705	4.4
FY87	3203	3.1
HW RECEIPTS		
FY88	23,031	19[a]
FY87	12,224	9.3

[a]Corrected value deleting $131 million DRMS input error.

Table 24

DRMS Sales/Issues as Percentages of Receipts

	No. Items	Value
FY88 HM sales and issues divided by FY88 HM receipts	54.1%	77.6%
FY87 HM sales and issues divided by FY87 HM receipts	41.1%	65.6%
FY88 HM sales and issues divided by FY87 HM receipts	61.0%	85.7%

more realistic figure and agrees more closely with the Army's total contract HW disposal cost of $21 million for FY88 (Table 14).

According to DRMS, there is no automated method for tracking which materials are ultimately disposed of by contract as HW. Currently there is no method for sorting IDMS data into the same categories or CLINs used in disposal contracts. In addition, the data is not in a form that can be sorted automatically by MACOM and installation.

5 CONCLUSIONS AND RECOMMENDATIONS

Disposal Costs

The Army generates waste in many DRMS categories and pays a substantial amount of money on DRMS contracts to dispose of it. Table 14 shows that the Army spent over $21 million in FY88 for HW disposal. Table 14 also shows that AMC costs for DRMS disposal were over twice as high as non-AMC costs, and AMC DRMS disposal weights were almost three times as high as non-AMC weights.

Based on the first three quarters of FY88 data, the following CLINs required the highest total disposal cost:

- *Non-AMC (Table 7)*: lithium-sulfur dioxide batteries, containers, contaminated waste oil, PCP wood, and spill debris
- *AMC (Table 11)*: PCB transformers, containers, PCP wood, heavy metal contaminated oil, and oil sludge.

Product categories requiring the highest disposal costs during FY88 (Table 14) for non-AMC installations included solvents, batteries, containers, non-RCRA wastes, and POL wastes. Those for AMC included paint waste, non-RCRA wastes, PCBs, containers, and PCP wood. TRADOC and FORSCOM appear to have substantially more batteries, spill residues, toxics, medical items, and compressed gas cylinders to dispose of than does AMC. It is recommended that the Army conduct research on how to reduce the quantities and disposal costs of each specific waste stream of high disposal cost.

It is recommended that hazardous waste management data covering a longer period of time (e.g., 3 years) be analyzed to provide a more accurate picture of disposal costs. Included in that study should be data traced back to (or obtained from) the HW generator so the Army may discover and evaluate opportunities for HW minimization (e.g., wider use of container linings to promote container reuse, more aggressive solvent recycling programs).

Waste Disposal Databases

The DRMS HW disposal database provides a useful source of data for analysis. There are certain limitations in the current database that, if eliminated, would expand its usefulness to Army users.

Recommendations for improving the DRMS waste disposal database are:

- Define CLINs more clearly. For example, several CLINs were assigned to cutting oil, but the differences among them are not clear.
- Use uniform quantity units for all CLINs to facilitate data analyses. As an alternative, a built-in conversion function could be added to the database. Currently, unit quantities in the database are highly varied and include such unconventional units as boxes, bottles, and "each." DRMOs and Army installations should make a concerted effort to use the master CLIN list units.
- Link CLINs to EPA hazardous waste codes to improve the efficiency of EPA reporting activities. Likewise, link CLINs to the National Stock Number (NSN) system to enable the waste generators to tie the DRMS hazardous waste data to material data.

- Identify the waste generator by military installation, MACOM, and MSC in addition to DODAAC.

The IDMS transaction history extracts provide little useful information for HM/HW analysis by type, location (other than DRMO), or command.

It is recommended that RTDS cost data reflect actual costs and sale prices rather than virgin material costs. The quantity of HM disposed of should also be included in IDMS data.

RTDS data in Table 23 provide a very rough estimate of the Army's financial performance in the receipt, sale, and issue of HM. There is no reliable system for tracking the receipt and sale of specific items, however, so a reliable evaluation of DRMS effectiveness in this area is not now possible. Recommend a thorough analysis of the RTDS data in future to recognize the DRMS' accomplishments in this area.

Further study is recommended to determine how the Army can more effectively procure and manage hazardous materials. By analyzing IDMS disposal data, HW could be traced to its source of generation. This undoubtedly would reveal a number of potential opportunities for further reduction of HW generation.

Disposal Contracts

Many private-sector TSD contractors believe DRMS hazardous waste disposal contracts are significantly more complicated and lengthy than typical private sector contracts. They suggest the Government's ability to estimate specific waste quantities accurately and eliminate or reduce the number of "miscellaneous" or "catch-all" CLINs are key factors in getting more competitive bids and reducing costs. It will be critical for the Army to provide more accurate data at the time of turn-in and for the DRMO/DRMS to analyze and use the data effectively. If contracts set maximum and minimum quantities for more CLINs, more competitive pricing would result. Contracts written for larger amounts of waste and wastes packaged in larger units (drums or bulk tanks instead of smaller containers) generally result in better unit prices. Conversely, contracts that require the contractor to pick up small quantities of waste at numerous remote points escalate costs. TSD contractors generally prefer to bid on RFPs for larger quantity disposal, and some larger contractors will not bid on small quantity disposal with short-notice pickup times.

It would be useful to convene a workshop of TSD industry leaders to hear the industry perspective in detail and assess their recommendations concerning HW disposal contracting.

METRIC CONVERSION TABLE

1 cu yd	=	0.7646 m^3
1 gal	=	3.78 l
1 in.	=	25.4 mm
1 lb	=	0.453 kg
1 oz	=	0.02957 l
1 pt	=	0.4732 l
1 qt	=	0.9463 l
1 ton	=	907.1848 kg

APPENDIX A:

MASTER CLIN LIST

Table A1

Master CLIN List Categories

Category	CLIN	Note
Acute hazardous waste	0001 - 0499	EPA P list
Batteries	0500 - 0599	
Compressed gas cylinder	0600 - 0799	
Container	1200 - 1299	
Corrosives-Acids	1300 - 1650	
Corrosives-Bases	1651 - 1999	
EP toxic	2000 - 2299	
Ignitable	2300 - 2799	
Medical items	2800 - 2899	
Metal plating	2900 - 3099	
Paints	3100 - 3399	
Pesticides	3400 - 3699	
Photography wastes	3700 - 3899	
POL	3900 - 4199	
Reactives	4200 - 4499	
Solvents	4500 - 5499	
Spill residues	5500 - 5599	
Toxics	5600 - 5899	EPA U list
Chemical defense equipment	5900 - 5999	
Non-RCRA	6000 - 6500	Asbestos
Medical items (Non-RCRA)	8000 - 8099	
PCBs	7000 - 7099	

NOTE: The order that the CLIN categories are reported in above, with the PCB category out of numerical sequence, is the form in which DRMS provided the Master CLIN List in Tables A2 and A3.

Table A2

DRMS Master CLIN List

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
0001 - 0499	ACUTE HAZARDOUS WASTE [40 CFR 261.33(e), P-listed and state regulated waste]	n/a			
0001	Acute Hazardous Waste, Misc in containers less than 1 gl		gl	_____	_____
0002	Acute Hazardous Waste, Misc in containers less than 7 lb		lb	_____	_____
0003	Deleted - 0001				
0004	Deleted - 0002				
0005	Acute Hazardous Waste, Misc		lb	_____	_____
0006	Acute Hazardous Waste, Misc		gl	_____	_____
0007	Aerosols, Acute Hazardous Waste		lb	_____	_____
0008	Beryllium Dust		lb	_____	_____
0009	Isocyanic Acid, methyl ester		gl	_____	_____
0010	Sodium Cyanide		lb	_____	_____
0011	Sodium Cyanide		gl	_____	_____
0012	Calcium Cyanide		gl	_____	_____
0013	Hydrogen Cyanide		gl	_____	_____
0014	Silver Cyanide		gl	_____	_____
0015	Potassium Cyanide		lb	_____	_____
0016	Barium Cyanide		lb	_____	_____
0017	Epinephrine		gl	_____	_____
0018	Isocyanic Acid, methyl ester		lb	_____	_____
0019	Sodium Cyanide		lb	_____	_____
0020	Calcium Cyanide		lb	_____	_____
0021	Hydrogen Cyanide		lb	_____	_____
0022	Silver Cyanide		lb	_____	_____
0023	Epinephrine		lb	_____	_____
0500 - 0599	BATTERIES	n/a			
0500	Batteries, Misc		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
0501	Batteries, Lithium-Sulfur-Dioxide		lb	_____	_____
0502	Batteries, Magnesium (STATE REGULATED)		lb	_____	_____
0503	Batteries, Nickel Cadmium		lb	_____	_____
0504	Batteries, Mercury		lb	_____	_____
0505	Batteries, Mercury, in water and vinegar		lb	_____	_____
0506	Batteries, Aid to Navigation (ATON) potassium hydroxide and zincate		lb	_____	_____
0507	Batteries, Alkaline		lb	_____	_____
0508	Batteries, Lead Acid		lb	_____	_____
0509	Batteries, Silver-Zinc		lb	_____	_____
0510	Batteries, Zinc-Alkali		lb	_____	_____
0511	Batteries, Lead-Acid, drained		lb	_____	_____
0512	Batteries, Nickel-Iron		lb	_____	_____
0513	Batteries, Thermal (spent)		lb	_____	_____
0600 - 0799	COMPRESSED GAS CYLINDERS	n/a			
0600	Compressed Gas Cylinders, Misc		lb	_____	_____
0601	Acetylene		lb	_____	_____
0602	Butane		lb	_____	_____
0603	Propane		lb	_____	_____
0604	Chlorine		lb	_____	_____
0605	Methyl Bromide		lb	_____	_____
0606	Sulfur Dioxide		lb	_____	_____
0607	Ammonia		lb	_____	_____
0608	Chlorine Triflouride		lb	_____	_____
0609	Carbon Monoxide		lb	_____	_____
0610	Ethylene Oxide		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
0611	Methyl Chloride		lb		
0612	Refrigerants		lb		
0613	Hydrogen		lb		
0614	Methylacetylene-Propadiene stabilized (MAPP)		lb		
1200 - 1299	CONTAINERS	n/a			
1200	Containers, 1 gl or larger which previously contained P-listed wastes, CLINs 0001-0499		lb		
1201	Containers, 1 gl or larger, with more than 1 inch of the wastes described in CLINs 0500-5999		lb		
1202	Containers, less than 1 gl which previously contained P-listed wastes, CLINs 0001-0499 (uncrushed or crushed)		lb		
1203	Containers, STATE REGULATED, with less than 1 inch of wastes described in CLINs 0500-5999 (uncrushed or crushed)		lb		
1300 - 1650	CORROSIVES-ACIDS (40 CFR 261.22, and 40 CFR 261 Subpart D and state regulated)	n/a			
1300	Acids, Misc in containers less than 1 gl		gl		
1301	Acids, Misc in containers less than 7 lb		lb		
1302	Deleted - 1300				
1303	Deleted - 1301				
1304	Corrosives Acids, Misc		lb		
1305	Corrosives Acids, Misc		gl		
1306	Acetic		gl		
1307	Acetic, Glacial		gl		
1308	Ammonium Acid Fluoride (ammonium biflouride)		lb		
1309	Battery Electrolyte (sulfuric acid)		gl		
1310	Chromic (chromium trioxide)		gl		
1311	Hydrochloric		gl		
1312	Hydrofluoric		gl		
1313	Nitric		gl		

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
1314	Phosphoric (orthophosphoric)		gl	_____	_____
1315	Phenolsulfonic (carbon removing compound)		gl	_____	_____
1316	Sulfamic (scale remover)		gl	_____	_____
1317	Sulfuric		gl	_____	_____
1318	Zinc Chloride		lb	_____	_____
1319	Sodium Bisulfite (sodium acid sulfite)		gl	_____	_____
1320	Zinc Chloride		gl	_____	_____
1321	Sodium Bisulfate (sodium acid sulfate)		gl	_____	_____
1322	Boric, Granular		lb	_____	_____
1323	Ferric Chloride		lb	_____	_____
1324	Sodium Fluoride		lb	_____	_____
1325	Hydrofluosilicic Acid		gl	_____	_____
1326	Sodium Bisulfate (sodium acid sulfate)		lb	_____	_____
1327	Deleted - 1314				
1328	Sulfamic Acid (scale remover)		lb	_____	_____
1329	Formic Acid		gl	_____	_____
1330	Tannic Acid		gl	_____	_____
1331	Ammonium Acid Flouride (ammonium biflouride)		gl	_____	_____
1332	Acetic		lb	_____	_____
1333	Battery Electrolyte (sulfuric acid)		lb	_____	_____
1334	Chromic (chromium trioxide)		lb	_____	_____
1335	Hydrochloric		lb	_____	_____
1336	Hydrofluoric		lb	_____	_____
1337	Nitric		lb	_____	_____
1338	Phosphoric (orthophosphoric)		lb	_____	_____
1339	Phenosulfonic (carbon removing compound)		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
1340	Sulfamic (scale remover)		lb	_____	_____
1341	Sulfuric		lb	_____	_____
1342	Sodium Bisulfite (sodium acid sulfite)		lb	_____	_____
1343	Sodium Bisulfate (sodium acid sulfate)		lb	_____	_____
1344	Hydrofluosilicic Acid		lb	_____	_____
1345	Formic Acid		lb	_____	_____
1346	Tannic Acid		lb	_____	_____
1347	Ammonium Acid Flouride (ammonium biflouride)		lb	_____	_____
1348	Acid Solution with Methylene Chloride, Chromic Acid		lb	_____	_____
1349	Chromic Acid contaminated with chromates		lb	_____	_____
1350	Nitric Acid with silver		lb	_____	_____
1351	Phosphoric Acid with kerosene (cleaning compound)		lb	_____	_____
1352	Oakite 32 - contains hydrochloric acid		lb	_____	_____
1353	Nitrating Acid Liquids in bulk tanks		lb	_____	_____
1354	Nitrating Acid		lb	_____	_____
1355	Aircraft Cleaning Compound (contains sulfonic acid, monoethanolamine, potassium hydroxide, sodium nitrate, and butyl cellosolve)		lb	_____	_____
1356	Citric Acid may be contaminated with (but not limited to) heavy metals, Chelating Agent in bulk tanks		lb	_____	_____
1357	Rust Arrester (phosphoric acid and ethylene glycol)		lb	_____	_____
1358	Phosphoric Acid Sludge		lb	_____	_____
1359	Sulfuric Acid may be contaminated with (but not limited to) heavy metals, paints, and dirt		lb	_____	_____
1360	Hydrochloric Acid may be contaminated with (but not limited to) heavy metals, paints, and dirt		lb	_____	_____
1361	Chromic Acid may be contaminated with (but not limited to) heavy metals, paints, and dirt		lb	_____	_____
1362	Chromic Acid Sludge may be contaminated with (but not limited to) heavy metals, paints, and dirt		lb	_____	_____
1363	Nitrating Acid may be contaminated with		lb	_____	_____

ITEM NO:	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
	(but not limited to) heavy metals, paints, and dirt				
1364	Sodium Bisulfate (sodium acid sulfate) may be contaminated with (but not limited to) heavy metals, paints, and dirt		lb	_____	_____
1365	Phosphoric Acid may be contaminated with (but not limited to) heavy metals, paints, dirt, and butyl cellosolve		lb	_____	_____
1366	Nitric Acid Sludge		lb	_____	_____
1367	Sodium Bisulfate Sludge (sodium acid sulfate sludge)		lb	_____	_____
1368	Microstripper (acid base stripper)		lb	_____	_____
1369	Nitric acid may be contaminated with (but not limited to) heavy metals, paint and dirt		lb	_____	_____
1370	Hydrochloric Acid Sludge		lb	_____	_____
1371	Phosphoric and Chromic Acid		lb	_____	_____
1372	Citric Acid may be contaminated with (but not limited to) alkaline solution		lb	_____	_____
1373	Dimethyl Sulfoxide (DMSO) may be contaminated with (but not limited to) nitric acid		lb	_____	_____
1374	Sulfuric Acid Sludge with (but not limited to) water (approx. 50%) sodium bicarb and lead sulfate		lb	_____	_____
1375	Water contaminated with (but not limited to) nitrating acids, petroleum products, and solvents		lb	_____	_____
1376	Red Fuming Nitric Acid		lb	_____	_____
1377	Acetic, Glacial		lb	_____	_____
1550	Acid Solution with Methylene Chloride, Chromic Acid		gl	_____	_____
1551	Chromic Acid contaminated with chromates		gl	_____	_____
1552	Nitric Acid with silver		gl	_____	_____
1553	Phosphoric Acid with kerosene (cleaning compound)		gl	_____	_____
1554	Oakite 32 - contains hydrochloric acid		gl	_____	_____
1555	Nitrating Acid Liquids in bulk tanks		gl	_____	_____
1556	Nitrating Acid		gl	_____	_____
1557	Aircraft Cleaning Compound (contains sulfonic acid, monoethanolamine, potassium hydroxide, sodium nitrate, and butyl cellosolve)		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
1558	Citric Acid may be contaminated with (but not limited to) heavy metals, Chelating Agent in bulk tanks		gl	_____	_____
1559	Rust Arrester (phosphoric acid and ethylene glycol)		gl	_____	_____
1560	Sulfuric Acid Sludge		lb	_____	_____
1561	Phosphoric Acid Sludge		gl	_____	_____
1562	Sulfuric Acid may be contaminated with (but not limited to) heavy metals, paints, and dirt		gl	_____	_____
1563	Hydrochloric Acid may be contaminated with (but not limited to) heavy metals, paints, and dirt		gl	_____	_____
1564	Chromic Acid may be contaminated with (but not limited to) heavy metals, paints, and dirt		gl	_____	_____
1565	Chromic Acid Sludge may be contaminated with (but not limited to) heavy metals, paints, and dirt		gl	_____	_____
1566	Nitrating Acid may be contaminated with (but not limited to) heavy metals, paints, and dirt		gl	_____	_____
1567	Sodium Bisulfate (sodium acid sulfate) may be contaminated with (but not limited to) heavy metals, paints, and dirt		gl	_____	_____
1568	Phosphoric Acid may be contaminated with (but not limited to) heavy metals, paints, dirt, and butyl cellosolve		gl	_____	_____
1569	Nitric Acid Sludge		gl	_____	_____
1570	Sodium Bisulfate Sludge (sodium acid sulfate sludge)		gl	_____	_____
1571	Microstripper (acid base stripper)		gl	_____	_____
1572	Nitric acid may be contaminated with (but not limited to) heavy metals, paint and dirt		gl	_____	_____
1573	Hydrochloric Acid Sludge		gl	_____	_____
1574	Phosphoric and Chromic Acid		gl	_____	_____
1575	Chromic (chromium trioxide)		lb	_____	_____
1576	Citric Acid may be contaminated with (but not limited to) alkaline solution		gl	_____	_____
1577	Dimethyl Sulfoxide (DMSO) may be contaminated with (but not limited to) nitric acid		gl	_____	_____
1578	Sulfuric Acid Sludge with (but not limited to) water (approx. 50%) sodium bicarb and lead sulfate		gl	_____	_____
1579	Water contaminated with (but not limited to) nitrating acids, petroleum products,		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
	and solvents				
1580	Aerosols, Misc Corrosives		lb	_____	_____
1581	Red Fuming Nitric Acid		gl	_____	_____
1651 - 1999	CORROSIVE-BASES	n/a			
1651	Corrosive Bases, Misc in containers less than 1 gl		gl	_____	_____
1652	Corrosive Bases, Misc in containers less than 7 lb		lb	_____	_____
1653	Deleted - 1651				
1654	Deleted - 1652				
1655	Corrosive Bases, Misc		lb	_____	_____
1656	Corrosive Bases, Misc		gl	_____	_____
1657	Ammonium Hydroxide		lb	_____	_____
1658	Ammonium Hydroxide		gl	_____	_____
1659	Sodium Hydroxide (caustic soda)		lb	_____	_____
1660	Sodium Hydroxide (caustic soda)		gl	_____	_____
1661	Sodium Hypochlorite		gl	_____	_____
1662	Potassium Hydroxide		gl	_____	_____
1663	Monoethanolamine (ethanolamine)		gl	_____	_____
1664	Calcium Hydroxide (caustic lime)		lb	_____	_____
1665	Potassium Hydroxide		lb	_____	_____
1666	Lithium Hydroxide		lb	_____	_____
1667	Lithium Hydroxide		gl	_____	_____
1668	Deleted				
1669	Deleted				
1670	Aluminum Chlorides		lb	_____	_____
1671	Sodium Hypochlorite		lb	_____	_____
1672	Sodium Hypochlorite		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
1673	Potassium Hydroxide		lb	_____	_____
1674	Monoethanolamine (ethanolamine)		lb	_____	_____
1675	Lithium Hydroxide		lb	_____	_____
1676	Aircraft Cleaning Compound		lb	_____	_____
1677	Deleted - 1664				
1678	Cleaning Compound		lb	_____	_____
1679	Oakite 24 - contains sodium hydroxide		lb	_____	_____
1680	Sodium Hydroxide Sludge		lb	_____	_____
1681	Caustic wastes with (but not limited to) sodium hydroxide, potassium hydroxide, sodium bisulfate, sodium carbonate		lb	_____	_____
1682	Caustic wastes with (but not limited to) sodium hydroxide, trisodium phosphate, dodecylbenzene, sodium sulfonate, water, paint, dirt, and grease		lb	_____	_____
1683	Alkaline solution may be contaminated with (but not limited to) heavy metals		lb	_____	_____
1684	Water contaminated with (but not limited to) mixed bases, petroleum products and solvents		lb	_____	_____
1685	Oakite 160 - contains sodium hydroxide		lb	_____	_____
1686	Sodium Hydroxide with heavy metals		lb	_____	_____
1900	Aircraft Cleaning Compound		gl	_____	_____
1901	Calcium Hydroxide (caustic lime)		gl	_____	_____
1902	Cleaning Compound		gl	_____	_____
1903	Oakite 24 - contains sodium hydroxide		gl	_____	_____
1904	Oakite 160 - contains sodium hydroxide		gl	_____	_____
1905	Deleted - 4730				
1906	Sodium Hydroxide with heavy metals		gl	_____	_____
1907	Sodium Hydroxide Sludge		gl	_____	_____
1908	Caustic wastes with (but not limited to) sodium hydroxide, potassium hydroxide, sodium bisulfate, sodium carbonate		gl	_____	_____
1909	Caustic wastes with (but not limited to) sodium hydroxide, trisodium phosphate, dodecylbenzene, sodium sulfonate, water,		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
	paint, dirt, and grease				
1910	Oxygen Breathing Apparatus Cannisters-spent-potassium hydroxide with residual potassium superoxide (cannisters approx. 4 lb each)		lb	_____	_____
1911	Catalyst, carbon monoxide & carbon oxidizing (lithium hydroxide, copper & manganese oxide)		lb	_____	_____
1912	Alkaline solution may be contaminated with (but not limited to) heavy metals		gl	_____	_____
1913	Decontaminating Agent, DS-2 (ph 12.5 or greater)		gl	_____	_____
1914	Decontaminating Agent, DS-2 (ph 12.5 or greater)		lb	_____	_____
1915	Water contaminated with (but not limited to) mixed bases, petroleum products and solvents		gl	_____	_____
2000 - 2299	EP TOXIC (40 CFR 261.24 and state regulated)	n/a			
2000	EP Toxic, Misc in containers less than 1 gl		gl	_____	_____
2001	EP Toxic, Misc in containers less than 7 lbs		lb	_____	_____
2002	Deleted - 2000				
2003	Deleted - 2001				
2004	EP Toxics, Misc		lb	_____	_____
2005	EP Toxics, Misc		gl	_____	_____
2006	Mercury		lb	_____	_____
2007	Mercury		gl	_____	_____
2008	Sodium Chromate		gl	_____	_____
2009	Sodium Dichromate		gl	_____	_____
2010	Hexavalent Chrome		lb	_____	_____
2011	Mercurous Nitrate		lb	_____	_____
2012	Potassium Dichromate (potassium bi-chromate, red postassium chromate)		lb	_____	_____
2013	Sodium Dichromate		lb	_____	_____
2014	Mercuric Nitrate		gl	_____	_____
2015	Mercuric Nitrate		lb	_____	_____
2016	Chromic Oxide		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
2017	Lead Acetate		lb	_____	_____
2018	Potassium Chromate (potassium chromate; yellow; neutral potassium chromate)		lb	_____	_____
2019	Sodium Chromate		lb	_____	_____
2020	Cadmium Oxide pre-treatment sludge		lb	_____	_____
2021	Sodium Chromate		lb	_____	_____
2022	Sodium Dichromate		lb	_____	_____
2023	Chromic Oxide		lb	_____	_____
2024	Paint Waste contaminated with lead		lb	_____	_____
2025	Skimmer Sludge contaminated with cadium		lb	_____	_____
2026	Sludge contaminated with lead & mercury		lb	_____	_____
2027	Sludge contaminated with trivalent chrome		lb	_____	_____
2028	Zinc Phosphate may be contaminated with (but not limited to) heavy metals, paints, and dirt		lb	_____	_____
2029	Phosphate Sludge may be contaminated with (but not limited to) heavy metals, paints, and dirt		lb	_____	_____
2030	Zinc Phosphate Sludge may be contaminated with (but not limited to) heavy metals, paints, and dirt		lb	_____	_____
2031	Aluminum Coating Solution/Sludge may be contaminated with (but not limited to) heavy metals, nitrating acids, salts, paints, and oils		lb	_____	_____
2032	Chrome Stripper		lb	_____	_____
2033	Cadmium Stripper		lb	_____	_____
2034	Cadmium Cyanide Wastewater		lb	_____	_____
2035	Manganese Phosphate Sludge may be contaminated with (but not limited to) heavy metals, cyanides, nitrating acids, and solvents		lb	_____	_____
2036	Water may be contaminated with (but not limited to) trivalent chrome		lb	_____	_____
2037	Water may be contaminated with (but not limited to) emulsifier/penetrants, phenols, and heavy metals		lb	_____	_____
2038	Ethylene Glycol (anti-freeze) may be contaminated with (but not limited to) heavy metals, oils, dirt, and water		lb	_____	_____
2039	Electroplating Sludges may be contaminated with (but limited to) heavy		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
	metals, petroleum products, solvents, and cyanides				
2040	Corrosion Preventative may be contaminated with (but not limited to) heavy metals		lb	_____	_____
2041	Plating Waste may be contaminated with (but not limited to) heavy metals		lb	_____	_____
2042	Plating Sludge may be contaminated with (but not limited to) chromium		lb	_____	_____
2043	Printing Room Wastewater may be contaminated with (but not limited to) cyanides and heavy metals		lb	_____	_____
2044	Water contaminated with (but not limited to) heavy metals, nitrating acids, gold, silver, zinc, brass, rhodium, and cobalt		lb	_____	_____
2045	Detergents, biodegradable, contaminated with (but not limited to) heavy metals		lb	_____	_____
2046	Barium Chromate		lb	_____	_____
2047	Lead Chromate		lb	_____	_____
2100	Blasting Booth Dusts/Sandblast Media with heavy metals		lb	_____	_____
2101	Paint Waste contaminated with lead		gl	_____	_____
2102	Skimmer Sludge contaminated with cadium		gl	_____	_____
2103	Sludge contaminated with lead & mercury		gl	_____	_____
2104	Sludge contaminated with trivalent chrome		gl	_____	_____
2105	Deleted - 2361				
2106	Sodium Carbonate (soda ash) may be contaminated with (but not limited to) heavy metals, paints, and dirt		lb	_____	_____
2107	Zinc Phosphate may be contaminated with (but not limited to) heavy metals, paints, and dirt		gl	_____	_____
2108	Phosphate Sludge may be contaminated with (but not limited to) heavy metals, paints, and dirt		gl	_____	_____
2109	Zinc Phosphate Sludge may be contaminated with (but not limited to) heavy metals, paints, and dirt		gl	_____	_____
2110	Manganese Phosphate may be contaminated with (but not limited to) heavy metals, paints, and dirt		lb	_____	_____
2111	Aluminum Coating Solution/Sludge may be contaminated with (but not limited to) heavy metals, nitrating acids, salts, paints, and oils		gl	_____	_____
2112	Chrome Stripper		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
2113	Cadmium Stripper		gl	_____	_____
2114	Cadmium Cyanide Wastewater		gl	_____	_____
2115	Manganese Phosphate Sludge may be contaminated (but not limited to) heavy metals, cyanides, nitrating acids, and solvents		gl	_____	_____
2116	Water may be contaminated with (but not limited to) trivalent chrome		gl	_____	_____
2117	Debris contaminated with (but not limited to) lead		lb	_____	_____
2118	Water may be contaminated with (but not limited to) emulsifier/penetrants, phenols, and heavy metals		gl	_____	_____
2119	Lead Azide Sludge (non-reactive/non-explosive per U.S. Bureau of Mines testing)		lb	_____	_____
2120	Debris contaminated with (but not limited to) mercury		lb	_____	_____
2121	Ethylene Glycol (anti-freeze) may be contaminated with (but not limited to) heavy metals, oils, dirt, and water		gl	_____	_____
2122	Debris contaminated with lead azide sludge (non-reactive/non-explosive per U.S. Bureau of Mines testing)		lb	_____	_____
2123	Electroplating Sludges may be contaminated with (but limited to) heavy metals, petroleum products, solvents, and cyanides		gl	_____	_____
2124	Corrosion Preventative may be contaminated with (but not limited to) heavy metals		gl	_____	_____
2125	Bag House Waste may be contaminated with (but not limited to) heavy metals		lb	_____	_____
2126	Emissions Dust from steel production may be contaminated with (but not limited to) heavy metals		lb	_____	_____
2127	Emissions Dust from weapons testing may be contaminated with (but not limited to) lead		lb	_____	_____
2128	Plating Waste may be contaminated with (but not limited to) heavy metals		gl	_____	_____
2129	Plating Sludge may be contaminated with (but not limited to) chromium		gl	_____	_____
2130	Plating Waste may be contaminated with (but not limited to) chromium		lb	_____	_____
2131	Stop-off Wax may be contaminated with (but not limited to) chromium		lb	_____	_____
2132	Printing Room Wastewater may be contaminated with (but not limited to) cyanides and heavy metals		gl	_____	_____
2133	Sludge may be contaminated with (but not limited to) trivalent chrome, cadmium, heavy metals, and metals		lb	_____	_____
2134	Water contaminated with (but not		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
	limited to) heavy metals, nitrating acids, gold, silver, zinc, brass, rhodium, and cobalt				
2135	Detergents, biodegradable, contaminated with (but not limited to) heavy metals		gl	_____	_____
2136	Fly Ash, may be contaminated with (but not limited to) cadmium and lead		lb	_____	_____
2137	Bottom Ash, wet, may be contaminated with (but not limited to) cadmium & lead		lb	_____	_____
2138	Barium Chromate		gl	_____	_____
2139	Lead Chromate		gl	_____	_____
2140	Lead Maleate		lb	_____	_____
2141	Sludge, Heavy Metal Hydroxide, contains oil and grease		lb	_____	_____
2142	Deleted - 5900				
2143	Agricultural Blast (walnut shells) (in hopper)		lb	_____	_____
2300 - 2799	IGNITABLES (40 CFR 261.21, and 40 CFR 261 subpart D, fp less than 140/F and state regulated combustible liquids fp 140/F to 199/f)	n/a			
2300	Ignitables, Misc in containers less than 1 gl		gl	_____	_____
2301	Ignitables, Misc in containers less than 7 lb		lb	_____	_____
2302	Deleted - 2300				
2303	Deleted - 2301				
2304	Ignitables, Misc		lb	_____	_____
2305	Ignitables, Misc		gl	_____	_____
2306	Aerosols, Ignitables, not empty		lb	_____	_____
2307	Adhesives		lb	_____	_____
2308	Adhesives		gl	_____	_____
2309	Calibration Fluid		gl	_____	_____
2310	Cleaning Compound (solvents, mineral spirits)		gl	_____	_____
2311	Gasoline, may be contaminated		gl	_____	_____
2312	Spot Remover		gl	_____	_____
2313	Sodium Sulfide		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
2314	Alcohol, Isopropyl (isopropanol)		gl	_____	_____
2315	Thinners		gl	_____	_____
2316	JP-4, may be contaminated or off-spec		gl	_____	_____
2317	JP-4, may be contaminated or off-spec		lb	_____	_____
2318	Aluminum Powder		lb	_____	_____
2319	Deleted - 4536				
2320	Kerosene		gl	_____	_____
2321	Sealing Compound		lb	_____	_____
2322	Sealing Compound		gl	_____	_____
2323	Asphalt Sealer		gl	_____	_____
2324	Ethyl Alcohol (ethanol)		gl	_____	_____
2325	Inhibitor (ethylene glycol monoethyl ether)		gl	_____	_____
2326	Deleted - 4506				
2327	Leather Dressing (mineral spirits, animal oil, ester gum)		lb	_____	_____
2328	Thinner, Epoxy		gl	_____	_____
2329	Decon Agent, STB, more than 39% chlorine		lb	_____	_____
2330	Decon Agent, STB, more than 39% chlorine		gl	_____	_____
2331	Calcium Hypochlorite, more than 39% chlorine		lb	_____	_____
2332	Bleaching Powder (chlorinated lime, more than 39% chlorine)		lb	_____	_____
2333	Deleted - 2015				
2334	Hydrogen Peroxide		gl	_____	_____
2335	Potassium Chlorate		gl	_____	_____
2336	Sodium Nitrate		gl	_____	_____
2337	Sodium Chlorite		lb	_____	_____
2338	Sodium Chlorite		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
2339	Foam saturated with JP-4		gl	_____	_____
2340	Ether (ethyl ether)		gl	_____	_____
2341	Calcium Carbide		lb	_____	_____
2342	Benzyl Alcohol		gl	_____	_____
2343	Dichloroethylene (1,2-Dichloroethylene; Acetylene dichloride)		gl	_____	_____
2344	Carbon Disulfide		gl	_____	_____
2345	Alcohol, Denatured		gl	_____	_____
2346	Duplicating Fluid (denatured alcohol, ethylene glycol monoethyl ether)		gl	_____	_____
2347	Morpholine		lb	_____	_____
2348	Sulfur		lb	_____	_____
2349	Dimethylformamide		gl	_____	_____
2350	Turpentine		gl	_____	_____
2351	Sodium Nitrate		lb	_____	_____
2352	Potassium Permanganate		gl	_____	_____
2353	Oxygen Breathing Apparatus Cannisters-unspent-potassium superoxide (cannisters approx. 4 lb each)		lb	_____	_____
2354	Acetyl Chloride (ethanoyl chloride)		gl	_____	_____
2355	Oxygen Candles (sodium chlorate, barium peroxide, iron binder)		lb	_____	_____
2356	Ethylene Oxide (epoxyethane; oxirane)		gl	_____	_____
2357	Ammonium Nitrate		gl	_____	_____
2358	Ethylenediamine (1,2-diaminoethane)		gl	_____	_____
2359	Polyurethane Components (A and/or B), polyurethane cushioning foam		gl	_____	_____
2360	Morpholine (tetrahydro-1,4-oxazine)		gl	_____	_____
2361	Alodine/Iridite (chromic acid, potassium ferricyanide, hydrofluoric acid, fluoride, hexavalent chrome)		gl	_____	_____
2362	Ammonium Persulfate		lb	_____	_____
2363	Potassium Nitrate		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
2364	N-butyl Acetate		gl	_____	_____
2365	Sodium Nitrite		gl	_____	_____
2366	Hexane		gl	_____	_____
2367	Otto Fuel with water		gl	_____	_____
2368	Otto Fuel with seawater		gl	_____	_____
2369	Otto Fuel with (but not limited to) oil, water, agitene (petroleum distillates, surfacant, monomethyl ether dipropylene glycol), cyanide, and alcohol		gl	_____	_____
2370	Hydrazine (approx. 2%) with (but not limited to) water		gl	_____	_____
2371	Hydrazine (approx. 5%) with (but not limited to) water		gl	_____	_____
2372	Hydrazine/MMH (approx. 5%) with (but not limited to) water		gl	_____	_____
2373	Hydrazine (approx. 10%) /UDMH (approx. 0.1%) with (but not limited to) water		gl	_____	_____
2374	Hydrazine/MMH/UDMH (approx. 20%) with (but not limited to) water		gl	_____	_____
2375	Hydrazine/MMH (approx. 20%) with (but not limited to) water		gl	_____	_____
2376	Hydrazine (approx. 20%) with (but not limited to) water		gl	_____	_____
2377	Hydrazine (approx. 26%) with (but not limited to) water		gl	_____	_____
2378	Hydrazine (approx. 36%) with (but not limited to) water		gl	_____	_____
2379	Hydrazine (approx. 50%) with (but not limited to) water		gl	_____	_____
2380	Bromine Cartridges		lb	_____	_____
2381	Foam saturated with JP-4		lb	_____	_____
2382	Carbon, Activated		lb	_____	_____
2383	Ammonium Nitrate		lb	_____	_____
2384	Potassium Permanganate (may be of sludge consistency)		lb	_____	_____
2385	Methyl Acetate		gl	_____	_____
2386	Ammonium Perchlorate		gl	_____	_____
2387	Nitrocellulose (cellulose nitrate)		gl	_____	_____
2388	Calcium		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
2389	Barium		lb	_____	_____
2390	Nitrogen Tetroxide		gl	_____	_____
2391	Impregnite		lb	_____	_____
2392	Calibration Fluid		lb	_____	_____
2393	Cleaning Compound (solvents, mineral spirits)		lb	_____	_____
2394	Gasoline, may be contaminated		lb	_____	_____
2395	Spot Remover		lb	_____	_____
2396	Sodium Sulfide		lb	_____	_____
2397	Alcohol, Isopropyl (isopropanol)		lb	_____	_____
2398	Thinners		lb	_____	_____
2399	Kerosene		lb	_____	_____
2400	Asphalt Sealer		lb	_____	_____
2401	Ethyl Alcohol (ethanol)		lb	_____	_____
2402	Inhibitor (ethylene glycol monoethyl ether)		lb	_____	_____
2403	Thinner, Epoxy		lb	_____	_____
2404	Hydrogen Peroxide		lb	_____	_____
2405	Potassium Chlorate		lb	_____	_____
2406	Sodium Nitrate		lb	_____	_____
2407	Sodium Chlorite		lb	_____	_____
2408	Ether (ethyl ether)		lb	_____	_____
2409	Benzyl Alcohol		lb	_____	_____
2410	Dichloroethylene (1,2-Dichloroethylene; Acetylene dichloride)		lb	_____	_____
2411	Carbon Disulfide		lb	_____	_____
2412	Alcohol, Denatured		lb	_____	_____
2413	Duplicating Fluid (denatured alcohol, ethylene glycol monoethyl ether)		lb	_____	_____
2414	Dimethylformamide		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
2415	Turpentine		lb	_____	_____
2416	Potassium Permanganate		lb	_____	_____
2417	Acetyl Chloride (ethanoyl chloride)		lb	_____	_____
2418	Ethylene Oxide (epoxyethane; oxirane)		lb	_____	_____
2419	Ammonium Nitrate		lb	_____	_____
2420	Ethylenediamine (1,2-diaminoethane)		lb	_____	_____
2421	Polyurethane Components (A and/or B), polyurethane cushioning foam		lb	_____	_____
2422	Alodine/Iridite (chromic acid, potassium ferricyanide, hydrofluoric acid, fluoride, hexavalent chrome)		lb	_____	_____
2423	N-butyl Acetate		lb	_____	_____
2424	Sodium Nitrite		lb	_____	_____
2425	Hexane		lb	_____	_____
2426	Otto Fuel with water		lb	_____	_____
2427	Otto Fuel with seawater		lb	_____	_____
2428	Otto Fuel with (but not limited to) oil, water, agitene (petroleum distillates, surfacant, monomethyl ether dipropylene glycol), cyanide, and alcohol		lb	_____	_____
2429	Hydrazine (approx. 2%) with (but not limited to) water		lb	_____	_____
2430	Hydrazine (approx. 5%) with (but not limited to) water		lb	_____	_____
2431	Hydrazine/MMH (approx. 5%) with (but not limited to) water		lb	_____	_____
2432	Hydrazine (approx. 10%) /UDMH (approx. 0.1%) with (but not limited to) water		lb	_____	_____
2433	Hydrazine/MMH/UDMH (approx. 20%) with (but not limited to) water		lb	_____	_____
2434	Hydrazine/MMH (approx. 20%) with (but not limited to) water		lb	_____	_____
2435	Hydrazine (approx. 20%) with (but not limited to) water		lb	_____	_____
2436	Hydrazine (approx. 26%) with (but not limited to) water		lb	_____	_____
2437	Hydrazine (approx. 36%) with (but not limited to) water		lb	_____	_____
2438	Hydrazine (approx. 50%) with (but not limited to) water		lb	_____	_____
2439	Methyl Acetate		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
2440	Ammonium Perchlorate		lb	_____	_____
2441	Nitrocellulose (cellulose nitrate)		lb	_____	_____
2442	Nitrogen Tetroxide		lb	_____	_____
2800 - 2899	MEDICAL ITEMS				
2800	Medical Items, Misc in containers less than 1 gl		gl	_____	_____
2801	Medical Items, Misc in containers less than 7 lb		lb	_____	_____
2802	Deleted - 2800				
2803	Deleted - 2801				
2804	Medical, Misc		lb	_____	_____
2805	Medical, Misc		gl	_____	_____
2806	Aerosols, Misc Medical Waste		lb	_____	_____
2900 - 3099	METAL PLATING/METAL STRIPPING	n/a			
	METAL PLATING/METAL STRIPPING				
2900	Metal Plating, Misc		lb	_____	_____
2901	Metal Plating, Misc		gl	_____	_____
2902	Nickel		gl	_____	_____
2903	Copper		gl	_____	_____
2904	Cyanide Solution		gl	_____	_____
2905	Water may be contaminated with (but not limited to) heavy metals, cyanides, nitrating acids, and solvents		gl	_____	_____
2906	Water may be contaminated with (but not limited to) heavy metals, acids, and bases		gl	_____	_____
2907	Zinc Phosphate may be contaminated with (but not limited to) steel wool and sand		lb	_____	_____
2908	Zinc Phosphate may be contaminated with (but not limited to) steel wool and sand		gl	_____	_____
2909	Nickel Stripper may be contaminated with (but not limited to) phenols, heavy metals, cyanides, corrosive bases, and nitrobenzene sulfamate		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
2910	Filters contaminated with cyanides		lb	_____	_____
2911	Cyanide Plating Sludge		gl	_____	_____
2912	Nickel Sludge may be contaminated with (but not limited to) heavy metals		gl	_____	_____
2913	Metal Stripper/Conditioning may be contaminated with (but not limited to) nitrating acids, paint, and oil		gl	_____	_____
2914	Plating Treatment Wastewater Sludge may be contaminated with (but not limited to) heavy metals		gl	_____	_____
2915	Nickel		lb	_____	_____
2916	Copper		lb	_____	_____
2917	Cyanide Solution		lb	_____	_____
2918	Water may be contaminated with (but not limited to) heavy metals, cyanides, nitrating acids, and solvents		lb	_____	_____
2919	Water may be contaminated with (but not limited to) heavy metals, acids, and bases		lb	_____	_____
2920	Nickel Stripper may be contaminated with (but not limited to) phenols, heavy metals, cyanides, corrosive bases, and nitrobenzene sulfamate		lb	_____	_____
2921	Cyanide Plating Sludge		lb	_____	_____
2922	Nickel Sludge may be contaminated with (but not limited to) heavy metals		lb	_____	_____
2923	Metal Stripper/Conditioning may be contaminated with (but not limited to) nitrating acids, paint, and oil		lb	_____	_____
2924	Plating Treatment Wastewater Sludge may be contaminated with (but not limited to) heavy metals		lb	_____	_____
3100 - 3399	PAINTS	n/a			
3100	Paint, Misc in containers less than 1 gl		gl	_____	_____
3101	Paint, Misc in containers less than 7 lb		lb	_____	_____
3102	Deleted - 3100				
3103	Deleted - 3101				
3104	Paint, Misc		lb	_____	_____
3105	Paint, Misc		gl	_____	_____
3106	Aerosols, Paint, not empty		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
3107	Acrylic		gl		
3108	Enamel		gl		
3109	Epoxy		gl		
3110	Lacquer		gl		
3111	Oil Base		gl		
3112	Polyurethane		gl		
3113	Varnish		gl		
3114	Primer		gl		
3115	Chlorinated Rubber		gl		
3116	Deck Coating		gl		
3117	Shellac		lb		
3118	Shellac		gl		
3119	Zinc Paint		gl		
3120	Acrylic		lb		
3121	Enamel		lb		
3122	Epoxy		lb		
3123	Lacquer		lb		
3124	Oil Base		lb		
3125	Polyurethane		lb		
3126	Varnish		lb		
3127	Primer		lb		
3128	Chlorinated Rubber		lb		
3129	Deck Coating		lb		
3130	Zinc Paint		lb		
3132	Paint Wastes may be contaminated with (but not limited to) oils, thinners, dirt, solvents, removers, & strippers		lb		
3133	Paint Wastes, chromic acid, phenols		lb		

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
3134	Paint Wastes with (but not limited to) strippers, heavy metals, and acids		lb	_____	_____
3135	Paint Wastes with heavy metals, oils, thinners, and solvents		lb	_____	_____
3136	Water may be contaminated with (but not limited to) paint, heavy metals, and dirt (could be paint spray booth debris)		lb	_____	_____
3137	Paint Wastewater Treatment Sludge may be contaminated with (but not limited to) paint, dirt, heavy metals		lb	_____	_____
3300	Paint Wastes may be contaminated with (but not limited to) oils, thinners, dirt, solvents, removers, & strippers		gl	_____	_____
3301	Paint Wastes, epoxy and/or polyurethane		lb	_____	_____
3302	Paint Wastes, epoxy and polyurethane		gl	_____	_____
3303	Paint Wastes, chromic acid, phenols		gl	_____	_____
3304	Paint Wastes with (but not limited to) strippers, heavy metals, and acids		gl	_____	_____
3305	Paint Wastes with heavy metals, oils, thinners, and solvents		gl	_____	_____
3306	Paint Waste Solid (chips and solidified paint)		lb	_____	_____
3307	Paint Wastes with (but not limited to) strippers, heavy metals, and acids		lb	_____	_____
3308	Water may be contaminated with (but not limited to) paint, heavy metals, and dirt (could be paint spray booth debris)		gl	_____	_____
3309	Paint Wastewater Treatment Sludge may be contaminated with (but not limited to) paint, dirt, heavy metals		gl	_____	_____
3310	Paint, partially solidified (solids, sludges, liquids, or any combination of solids, liquids, and/or sludges)		lb	_____	_____
3311	Paint or paint wastes, contaminated with PCBs		lb	_____	_____
3400 - 3699	PESTICIDES	n/a			
3400	Pesticides, Misc in containers less than 1 gl		gl	_____	_____
3401	Pesticides, Misc in containers less than 7 lb		lb	_____	_____
3402	Deleted - 3400				
3403	Deleted - 3401				
3404	Pesticides, Misc		lb	_____	_____
3405	Pesticides, Misc		gl	_____	_____

MASTER CLIN LIST 8/30/89

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
3406	Aerosols, Pesticides, not empty		lb	_____	_____
3407	DDD (dichlorodiphenyl-dichloroethane: TDE)		lb	_____	_____
3408	DDT (dichlorodiphenyl-trichloroethane; dicophane)		lb	_____	_____
3409	DDT (dichlorodiphenyl-trichloroethane; dicopahne)		gl	_____	_____
3410	Diazinon (0,0-diethyl 0-(2-isopropyl-4 -methyl-6-pyrimidinyl)phosphorothioate)		lb	_____	_____
3411	Diazinon (0,0-diethyl 0-(2-isopropyl-4 -methyl-6-pyrimidinyl)phosphorothioate)		gl	_____	_____
3412	Chlordane (1,2,4,5,6,7,8, 8-octachloro-4,7-methano-3a,4,7, 7a-tetrahydroindane)		gl	_____	_____
3413	Malathion (S-[1,2-bis(ethoxycarbonyl) ethyl] 0,0-dimethyl phosphorodithioate)		gl	_____	_____
3414	Brulin 715		gl	_____	_____
3415	Ceresan (methyl mercury P-Toluene)		lb	_____	_____
3416	Lindane (gammabenzene hexachloride)		lb	_____	_____
3417	Lindane (gammabenzene hexachloride)		gl	_____	_____
3418	Pentachlorophenol (PCP)		lb	_____	_____
3419	Pentachlorophenol (PCP)		gl	_____	_____
3420	Warfarin (3-(alpha-acetonylbenzyl)-4-hydroxycoumarin)		lb	_____	_____
3421	Fumazone (1,2-Dibromo-3-Chloropropane)		gl	_____	_____
3422	Silvex (fenoprop; 2-(2,4,5-trichloro-phenoxy)propionic acid)		gl	_____	_____
3423	Borocil IV (sodium metaborate; tetrahydrate; 5-bromo-3-sec-butyl-6-methyluracil)		lb	_____	_____
3424	Vapona (2,2-dichloro-vinyl dimethyl phosphate)		gl	_____	_____
3425	Dieldrin (HEOD)		lb	_____	_____
3426	Baygon (ortho-iso-propoxyphenyl methyl-carbamate		lb	_____	_____
3427	Malathion (S-[1,2-bis(ethoxycarbonyl) ethyl] 0,0-dimethyl phosphorodithioate)		lb	_____	_____
3428	Bromacil (5-bromo-3sec-butyl-6-methyluracil)		lb	_____	_____
3429	Bromacil (5-bromo-3 sec-butyl-6-methyluracil)		gl	_____	_____
3430	Chlordane (1,2,4,5,6,7,8, 8-octachloro-4,7-methano-3a,4,7, 7a-tetrahydroindane)		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
3431	Pyrethrins (pyrethrolone ester of chrysanthemum-monocarboxylic acid)		lb	_____	_____
3432	Pyrethrins (pyrethrolone ester of chrysanthemum-monocarboxylic acid)		gl	_____	_____
3433	Sodium Arsenite (sodium metaarsenite)		gl	_____	_____
3434	Dichlorophenoxyacetic acid (2,4-Dichlorophenoxyacetic Acid; 2,4-D)		gl	_____	_____
3435	Carbaryl (1-naphthyl-N-methyl-carbamate)		lb	_____	_____
3436	Betasan (S-(O-Diisopropyl Phosphoro-dithioate) of N-(2-mercaptoethyly) benzenesulfonamide)		lb	_____	_____
3437	Kepone		lb	_____	_____
3438	Kepone		gl	_____	_____
3439	Pival (2-Pivalyl-1,3-indandione)		lb	_____	_____
3440	Deleted - 3430				
3441	Deleted - 3427				
3442	Brulin 715		lb	_____	_____
3443	Fumazone (1,2-Dibromo-3-Chloropropane)		lb	_____	_____
3444	Silvex (fenoprop; 2-(2,4,5-trichloro-phenoxy)propionic acid)		lb	_____	_____
3445	Vapona (2,2-dichloro-vinyl dimethyl phosphate)		lb	_____	_____
3446	Sodium Arsenite (sodium metaarsenite)		lb	_____	_____
3447	Dichlorophenoxyacetic acid (2,4-Dichlorophenoxyacetic Acid; 2,4-D)		lb	_____	_____
3448	DDD/Lindane		lb	_____	_____
3449	Water contaminated with (but not limited to) chlordane; malathion; diazinon; 2,4-D; baygon; pyrethrins; dursban; carbaryl; ronnel; abate; bendicarb		lb	_____	_____
3600	DDD/Lindane		gl	_____	_____
3601	Dioxin - contaminated items		lb	_____	_____
3602	Dioxin - contaminated items		gl	_____	_____
3603	Water contaminated with (but not limited to) chlordane; malathion; diazinon; 2,4-D; baygon; pyrethrins; dursban; carbaryl; ronnel; abate; bendicarb		gl	_____	_____
3700 - 3899	PHOTOGRAPHY WASTES	n/a			
3700	Photography Wastes, Misc in containers		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
	less than 1 gl				
3701	Photography Wastes, Misc in containers less than 7 lbs		lb	_____	_____
3702	Deleted - 3700				
3703	Deleted - 3701				
3704	Photography Wastes, Misc		lb	_____	_____
3705	Photography Wastes, Misc		gl	_____	_____
3706	Auto Reversal Chemicals		lb	_____	_____
3707	Developers		gl	_____	_____
3708	Multilith Electrostatic Ferrocyanide		gl	_____	_____
3709	Toners		gl	_____	_____
3710	Fixers		gl	_____	_____
3711	Hardener		gl	_____	_____
3712	Stabilizers		gl	_____	_____
3713	Print Activator (magnesium acetate, ethylene thiourea complexed with silver, acetic acid, water)		gl	_____	_____
3714	Print Flattening and Gloss Solution (2-methyl-2,4-pentanediol)		gl	_____	_____
3715	Starters		lb	_____	_____
3716	Starters		gl	_____	_____
3717	Replenishers		lb	_____	_____
3718	Replenishers		gl	_____	_____
3719	Fixers		lb	_____	_____
3720	Developers		lb	_____	_____
3721	Print Activator		lb	_____	_____
3722	Photo Bleach w/ ferrocyanide		lb	_____	_____
3723	Hypo-solution (sodium thiosulfate)		gl	_____	_____
3724	Hypo-solution (ammonium thiosulfate)		gl	_____	_____
3725	Toners		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
3726	Multilith Electrostatic Ferrocyanide		lb	_____	_____
3727	Hardener		lb	_____	_____
3728	Stabilizers		lb	_____	_____
3729	Print Activator (magnesium acetate, ethylene thiourea complexed with silver, acetic acid, water)		lb	_____	_____
3730	Print Flattening and Gloss Solution (2-methyl-2,4-pentanediol)		lb	_____	_____
3731	Hypo-solution (sodium thiosulfate)		lb	_____	_____
3732	Hypo-solution (ammonium thiosulfate)		lb	_____	_____
3900 - 4199	POL (Petroleum-Oils-Lubricants) with contaminants	n/a			
3900	POL, Misc in containers less than 1 gl		gl	_____	_____
3901	POL, Misc in containers less than 7 lb		lb	_____	_____
3902	Deleted - 3900				
3903	Deleted - 3901				
3904	POL, Misc		lb	_____	_____
3905	POL, Misc		gl	_____	_____
3906	Aerosols, POL, not empty		lb	_____	_____
3907	Grease contaminated with oils		lb	_____	_____
3908	Cutting Oils contaminated with metals		lb	_____	_____
3909	Naptha (mineral spirits)		gl	_____	_____
3910	Water contaminated with oil and/or soap		gl	_____	_____
3911	Oil/Oil Sludge from water separator or tank		gl	_____	_____
3912	ACFT Corrosion Control Rinsate (mineral oil, isopariffin hydrocarbons, petroleum hydrocarbons, oil)		gl	_____	_____
3913	Napthalene		gl	_____	_____
3914	Oil may be contaminated with (but not limited to) chromium, lead, & solvents		gl	_____	_____
3915	Oil Sludge		gl	_____	_____
3916	Diesel Fuel		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
3917	Gun Flushing Compound - petroleum/oil		gl	_____	_____
3918	Oil contaminated with water		gl	_____	_____
3919	Filter Cartridges may be contaminated with petroleum, petroleum fuels & naptha		lb	_____	_____
3920	Diesel Fuel, Kerosene, JP-4 contaminated with water and dirt		gl	_____	_____
3921	Oil may be contaminated with (but not limited to) dirt, water, diesel fuel, thinners, solvents, paint, ethylene glycol, turpentine, gasoline		gl	_____	_____
3922	Hydraulic Fluid with (but not limited to) heavy metals and solvents		gl	_____	_____
3923	Corrosion Inhibitor (petroleum distillates, stoddard solvents)		gl	_____	_____
3924	Corrosion Inhibitor (mineral oil, isoparafin hydrocarbons)		gl	_____	_____
3925	Lubricant, petroleum		gl	_____	_____
3926	Oil, Synthetic		gl	_____	_____
3927	Petroleum Fuels		lb	_____	_____
3928	Petroleum Fuels		gl	_____	_____
3929	Oil may be contaminated with (but not limited to) grease and water		gl	_____	_____
3930	Hydraulic Fluid		gl	_____	_____
3931	Corrosion Preventative (crude petroleum oil)		lb	_____	_____
3932	Petroleum Lubricants (used) could be contaminated with (but not limited to) diesel and burner fuels, ethylene glycol, water and dirt		gl	_____	_____
3933	Naptha (mineral spirits) with (but not limited to) oil, cyanide, and traces of Otto fuel		gl	_____	_____
3934	Oil contaminated with (but not limited to) lube and preservative oil, naptha, water, cyanide, and excess chlorine from cyanide reduction		gl	_____	_____
3935	Oil Quench Bath Sludge may be contaminated with (but not limited to) cyanides		gl	_____	_____
3936	Oil may be contaminated with (but not limited to) heavy metals		gl	_____	_____
3937	Oil, Cutting may be contaminated with (but not limited to) heavy metals		gl	_____	_____
3938	Debris (to be removed from oil/water separator): wood, glass, bottles, rocks, brushes, cans, dirt, sand, pine straw, and various contaminants not to exceed 6" in diameter		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
3939	Naptha (mineral spirits)		lb		
3940	Water contaminated with oil and/or soap		lb		
3941	Oil/Oil Sludge from water separator or tank		lb		
3942	ACFT Corrosion Control Rinsate (mineral oil, isoparifin hydrocarbons, petroleum hydrocarbons, oil)		lb		
3943	Napthalene		lb		
3944	Oil may be contaminated with (but not limited to) chromium, lead, & solvents		lb		
3945	Oil Sludge		lb		
3946	Diesel Fuel		lb		
3947	Gun Flushing Compound - petroleum/oil		lb		
3948	Oil contaminated with water		lb		
3949	Diesel Fuel, Kerosene, JP-4 contaminated with water and dirt		lb		
3950	Oil may be contaminated with (but not limited to) dirt, water, diesel fuel, thinners, solvents, paint, ethylene glycol, turpentine, gasoline		lb		
3951	Hydraulic Fluid with (but not limited to) heavy metals and solvents		lb		
3952	Corrosion Inhibitor (petroleum distillates, stoddard solvents)		lb		
3953	Corrosion Inhibitor (mineral oil, isoparafin hydrocarbons)		lb		
3954	Lubricant, petroleum		lb		
3955	Oil, Synthetic		lb		
3956	Oil may be contaminated with (but not limited to) grease and water		lb		
3957	Hydraulic Fluid		lb		
3958	Petroleum Lubricants (used) could be contaminated with (but not limited to) diesel and burner fuels, ethylene glycol, water and dirt		lb		
3959	Naptha (mineral spirits) with (but not limited to) oil, cyanide, and traces of Otto fuel		lb		
3960	Oil contaminated with (but not limited to) lube and preservative oil, naptha, water, cyanide, and excess chlorine from cyanide reduction		lb		
3961	Oil Quench Bath Sludge may be contaminated with (but not limited to) cyanides		lb		

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
3962	Oil may be contaminated with (but not limited to) heavy metals		lb	_____	_____
3963	Oil, Cutting may be contaminated with (but not limited to) heavy metals		lb	_____	_____
3964	POLs or POL wastes, contaminated with PCBs		lb	_____	_____
4200 - 4499	REACTIVES (40 CFR 261.23, 40 CFR 261 subpart D and state regulated)	n/a			
4200	Reactives, Misc in containers less than 1 gl		gl	_____	_____
4201	Reactives, Misc in containers less than 7 lb		lb	_____	_____
4202	Deleted - 4200				
4203	Deleted - 4201				
4204	Reactives, Misc		lb	_____	_____
4205	Reactives, Misc		gl	_____	_____
4206	Organic Peroxides		lb	_____	_____
4207	Organic Peroxides		gl	_____	_____
4208	Calcium Hydride		lb	_____	_____
4209	Deleted - 2362				
4210	Deleted - 2334				
4211	Deleted - 2351				
4212	Deleted - 2363				
4213	Deleted - 2353				
4214	Lithium		lb	_____	_____
4500 - 5499	SOLVENTS	n/a			
4500	Solvents, Misc. in containers less than 1 gl		gl	_____	_____
4501	Solvents, Misc. in containers less than 7 lb		lb	_____	_____
4502	Deleted - 4500				
4503	Deleted - 4501				
4504	Solvents, Misc.		lb	_____	_____
4505	Solvents, Misc.		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
4506	Aerosols, Solvents, not empty		lb	_____	_____
4507	Acetone (dimethyl-ketone; 2-propanone)		gl	_____	_____
4508	Carbon Disulfide (carbon bisulfide)		gl	_____	_____
4509	Carbon Tetrachloride (tetrachloro-methane; perchloromethane)		gl	_____	_____
4510	Chlorobenzene (monochlorobenzene; phenyl chloride)		gl	_____	_____
4511	Cresol (methyl phenol; hydroxy-methylbenzene; cresylic acid)		gl	_____	_____
4512	Cresylic Acid		gl	_____	_____
4513	Cyclohexanone (pimelic ketone; ketohexamethylene)		gl	_____	_____
4514	Ethyl Acetate (acetic ether; acetic esther; vinegar naptha)		gl	_____	_____
4515	Ethyl Benzene (phenylethane)		gl	_____	_____
4516	Ethyl Ether (ether; diethyl ether; sulfuric ether; ethyl oxide; diethyl oxide)		gl	_____	_____
4517	Isobutanol (isobutyl alcohol)		gl	_____	_____
4518	Methanol (methyl alcohol)		gl	_____	_____
4519	Methylene Chloride (methylene dichloride; dichloromethane)		gl	_____	_____
4520	Methyl Ethyl Ketone (MEK)		gl	_____	_____
4521	Methyl Isobutyl Ketone (MIBK)		gl	_____	_____
4522	N-Butyl Alcohol (1-butanol; butyric alcohol)		gl	_____	_____
4523	Nitrobenzene (oil of mirbane)		gl	_____	_____
4524	Ortho-Dichlorobenzene (1,2-dichloro-benzene)		gl	_____	_____
4525	Pyridine		gl	_____	_____
4526	Tetrachloroethylene (perchloroethylene)		gl	_____	_____
4527	Toluene (methyl-benzene; phenyl-methane)		gl	_____	_____
4528	Trichloroethane, 1,1,1- (methyl chloroform)		gl	_____	_____
4529	Trichloroethylene		gl	_____	_____
4530	Trichlorofluoromethane (fluorotrichloro methane; fluorocarbon-11)		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
4531	Trifluorotrichloroethane (1,1,2-Trichloro-1,2,2-Trifluoroethane)		gl	_____	_____
4532	Xylene (dimethyl-benzene)		gl	_____	_____
4533	Freon (fluorocarbons)		gl	_____	_____
4534	Chlorinated Fluorocarbons		gl	_____	_____
4535	Trichloroethane, 1,1,2-		gl	_____	_____
4536	Benzene		gl	_____	_____
4537	Ethoxyethanol, 2-		gl	_____	_____
4538	Nitropropane, 2-		gl	_____	_____
4539	Acetone (dimethyl-ketone, 2-propanone)		lb	_____	_____
4540	Carbon Disulfide (carbon bisulfide)		lb	_____	_____
4541	Carbon Tetrachloride (tetrachloro-methane; perchloromethane)		lb	_____	_____
4542	Chlorobenzene (monochlorobenzene; phenyl chloride)		lb	_____	_____
4543	Cresol (methyl phenol; hydroxy-methylbenzene; cresylic acid)		lb	_____	_____
4544	Cresylic Acid		lb	_____	_____
4545	Cyclohexanone (pimelic ketone; ketohexamethylene)		lb	_____	_____
4546	Ethyl Acetate (acetic ether; acetic ester; vinegar naptha)		lb	_____	_____
4547	Ethyl Benzene (phenylethane)		lb	_____	_____
4548	Ethyl Ether (ether; diethyl ether; sulfuric ether; ethyl oxide; diethyl oxide)		lb	_____	_____
4549	Isobutanol (isobutyl alcohol)		lb	_____	_____
4550	Methanol (methyl alcohol)		lb	_____	_____
4551	Methylene Chloride (methylene dichloride; dichloromethane)		lb	_____	_____
4552	Methyl Ethyl Ketone (MEK)		lb	_____	_____
4553	Methyl Isobutyl Ketone (MIBK)		lb	_____	_____
4554	N-Butyl Alcohol (1-butanol; butyric alcohol)		lb	_____	_____
4555	Nitrobenzene (oil of mirbane)		lb	_____	_____
4556	Ortho-Dichlorobenzene (1,2-dichloro-		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
	benzene)				
4557	Pyridine		lb	_____	_____
4558	Tetrachloroethylene (perchloroethylene)		lb	_____	_____
4559	Toluene (methyl-benzene; phenyl-methane)		lb	_____	_____
4560	Trichloroethane, 1,1,1- (methyl chloroform)		lb	_____	_____
4561	Trichloroethylene		lb	_____	_____
4562	Trichlorofluoromethane (fluorotrichloro methane; fluorocarbon-11)		lb	_____	_____
4563	Trifluorotrichloroethane		lb	_____	_____
4564	Xylene (dimethyl-benzene)		lb	_____	_____
4565	Freon (fluorocarbons)		lb	_____	_____
4566	Chlorinated Fluorocarbons		lb	_____	_____
4567	Trichloroethane, 1,1,2-		lb	_____	_____
4568	Benzene		lb	_____	_____
4569	Ethoxyethanol, 2-		lb	_____	_____
4570	Nitropropane, 2-		lb	_____	_____
4571	MEK and Paint		lb	_____	_____
4572	Methanol, Toluene, Water, Paint		lb	_____	_____
4573	Solvents, Mixed, approximately 60% methylene chloride		lb	_____	_____
4574	Methylene Chloride may be contaminated with (but not limited to) toluene, alcohols, MIBK, methanol, sodium chromate		lb	_____	_____
4575	Solvents and Thinners contaminated with (but not limited to) paint wastes		lb	_____	_____
4576	Paint Removers		lb	_____	_____
4577	Trichloroethane, contaminated		lb	_____	_____
4578	Dye Penetrant (trichloroethane with ethoxylated nonylphenol, dichloro-methane, carbon dioxide, and petro-leum hydrocarbons		lb	_____	_____
4579	Turco Cleaner could contain aromatic solvents, glycol ether, water, and petroleum hydrocarbons		lb	_____	_____
4580	Methylene Chloride with urethane		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
4581	Methylene Chloride Sludge		lb	_____	_____
4582	Tetrachloroethylene (perchloroethylene) Sludge		lb	_____	_____
4583	Trichloroethylene Sludge		lb	_____	_____
4584	Trichloroethane, 1,1,1-, Still Bottoms		lb	_____	_____
4585	MEK may be contaminated with (but not limited to) toluene, thinners, ethanol, solvents, peroxides, petroleum products, and paint		lb	_____	_____
4586	Trichloroethane with water and/or oil		lb	_____	_____
4587	Duplicating Fluid (methanol, ethyl alcohol, ethylene glycol monethyl ether)		lb	_____	_____
4588	Tetrachloroethylene (perchloroethylene) may be contaminated with (but not limited to) hydraulic fluid, freon, petroleum products, emulsifier, penetrant, and heavy metals		lb	_____	_____
4589	Carbon Remover (orthodichlorobenzene, potassium oleate, water) contaminated with heavy metals		lb	_____	_____
4590	Generator Cleaner contains (but not limited to) dichlorobenzene		lb	_____	_____
4591	Mixed Solvents (but not limited to) methylene chloride, trichloroethane, freon, and MEK		lb	_____	_____
4592	Trichloro-trifluoroethane contaminated with (but not limited to) trichloro-ethane, methanol, acetone & alcohols		lb	_____	_____
4593	Trichloroethane Sludge		lb	_____	_____
4594	Silicone Fluid may be contaminated with (but not limited to) acetone, freon, paint residues, petroleum products, alcohols, thinners & trichloroethane		lb	_____	_____
4595	Water may be contaminated with (but not limited to) trichloroethane, MEK, and/or other solvents		lb	_____	_____
4596	Caustic Solution containing methylene chloride		lb	_____	_____
4597	Solvents may be contaminated with (but not limited to) water and petroleum products		lb	_____	_____
4598	PD 680		lb	_____	_____
4599	Purging Fluid		lb	_____	_____
4600	Ethylene Chloride		lb	_____	_____
4601	Stoddard Solvent		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
4602	Dry Cleaning Solvent		lb		
4603	Stoddard Solvent may be contaminated with (but not limited to) heavy metals		lb		
4604	Inspection Penetrants, Fluoro-finder (solvents, alkyl aryl polyethoxide ester sulfactant or aromatic naphtha, alkyl amines, glycol ether)		lb		
4700	MEK and Paint		gl		
4701	Methanol, Toluene, Water, Paint		gl		
4702	Solvents, Mixed, approximately 60% methylene chloride		gl		
4703	Methylene Chloride may be contaminated with (but not limited to) toluene, alcohols, MIBK, methanol, sodium chromate		gl		
4704	Solvents and Thinners contaminated with (but not limited to) paint wastes.		gl		
4705	Paint Removers		gl		
4706	Trichloroethane, contaminated		gl		
4707	Dye Penetrant (trichloroethane with ethoxylated nonylphenol, dichloro-methane, carbon dioxide, and petro-leum hydrocarbons		gl		
4708	Turco Cleaner could contain aromatic solvents, glycol ether, water, and petroleum hydrocarbons		gl		
4709	Methylene Chloride with urethane		gl		
4710	Methylene Chloride Sludge		gl		
4711	Tetrachloroethylene (perchloroethylene) Sludge		gl		
4712	Trichloroethylene Sludge		gl		
4713	Filter Cartridges with perchloro-ethylene (tetrachloroethylene)		lb		
4714	Trichloroethane, 1,1,1-, Still Bottoms		gl		
4715	MEK may be contaminated with (but not limited to) toluene, thinners, ethanol, solvents, peroxides, petroleum products, and paint		gl		
4716	Trichloroethane with water and/or oil		gl		
4717	Duplicating Fluid (methanol, ethyl alcohol, ethylene glycol monethyl ether)		gl		
4718	Tetrachloroethylene (perchloroethylene) may be contaminated with (but not limited to) hydraulic fluid, freon, petroleum products, emulsifier, penetrant, and heavy metals		gl		

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
4719	Deleted - 4752				
4720	Deleted - 4753				
4721	Deleted - 4752				
4722	Deleted - 4753				
4723	Carbon Remover (orthodichlorobenzene, potassium oleate, water) contaminated with heavy metals		gl	_____	_____
4724	Generator Cleaner contains (but not limited to) dichlorobenzene		gl	_____	_____
4725	Mixed Solvents (but not limited to) methylene chloride, trichloroethane, freon, and MEK		gl	_____	_____
4726	Trichloro-trifluoroethane contaminated with (but not limited to) trichloro-ethane, methanol, acetone & alcohols		gl	_____	_____
4727	Trichloroethane Sludge		gl	_____	_____
4728	Silicone Fluid may be contaminated with (but not limited to) acetone, freon, paint residues, petroleum products, alcohols, thinners, & trichloroethane		gl	_____	_____
4729	Water may be contaminated with (but not limited to) trichloroethane, MEK, and/or other solvents.		gl	_____	_____
4730	Caustic Solution containing methylene chloride		gl	_____	_____
4731	Solvents may be contaminated with (but not limited to) water and petroleum products		gl	_____	_____
4732	Deleted - 3300				
4733	Deleted - 3310				
4734	Deleted - 1305				
4735	Deleted - 1304				
4736	Deleted - 2005				
4737	Deleted - 2004				
4738	Deleted - 2305				
4739	Deleted - 2304				
4740	Deleted - 2901				
4741	Deleted - 2900				
4742	Deleted - 3905				

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
4743	Deleted - 3904				
4744	Deleted - 1656				
4745	Deleted - 1655				
4746	Deleted - 4703				
4747	Deleted - 5500				
4748	Deleted - 4752				
4749	Deleted - 4753				
4750	Deleted - 4752				
4751	Deleted - 4753				
4752	Deleted - (Waste with any C.23 solvents)		lb		
4753	Deleted - (Waste with any C.23 solvent)		gl		
4754	Filter Press Sludge, contaminated with heavy metals, phenols, halogenated and non-halogenated solvents, moisture content of 15-20%, but no free liquids		lb	_____	_____
4755	IWTP sludge containing solvents and heavy metals		lb	_____	_____
5000	Deleted - 4500				
5001	Deleted - 4501				
5002	Deleted - 5000				
5003	Deleted - 5001				
5004	Deleted - 4504				
5005	Deleted - 4505				
5006	Deleted - 4506				
5007	PD 680		gl	_____	_____
5008	Purging Fluid		gl	_____	_____
5009	Ethylene Chloride		gl	_____	_____
5010	Stoddard Solvent		gl	_____	_____
5011	Dry Cleaning Solvent		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
5012	Stoddard Solvent may be contaminated with (but not limited to) heavy metals		gl	_____	_____
5013	Inspection Penetrant (hydrocarbon solvents, methyl chloroform, propanol, pyr, carbon dioxide)		lb	_____	_____
5014	Inspection Penetrant (hydrocarbon solvents, methyl chloroform, propanol, pyr, carbon dioxide)		gl	_____	_____
5015	Inspection Penetrants, Fluoro-finder (solvents, alkyl aryl polyethoxide ester sulfactant or aromatic naphtha, alkyl amines, glycol ether)		gl	_____	_____
5016	Solvents or solvent wastes, contaminated with PCBs		lb	_____	_____
5500 - 5599	SPILL RESIDUES (RCRA/state regulated contaminated/ listed)	n/a			
5500	Spill Residues, Misc and/or debris, RCRA contaminated		lb	_____	_____
5501	Spill Residues and/or debris, Misc RCRA contaminated		gl	_____	_____
5503	Pallets-RCRA contaminated		lb	_____	_____
5504	Deleted - 5500				
5505	Deleted - 5501				
5506	Deleted - 5502				
5507	Deleted - 5503				
5600 - 5899	TOXICS (40 CFR 261.33 (f), U-listed and state regulated wastes)	n/a			
5600	Toxics, Misc in containers less than 1 gl		gl	_____	_____
5601	Toxics, Misc in containers less than 7 lb		lb	_____	_____
5602	Deleted - 5600				
5603	Deleted - 5601				
5604	Toxics, Misc		lb	_____	_____
5605	Toxics, Misc.		gl	_____	_____
5606	Methylenebis(2-chloroaniline), 4,4'- (MOCA)		gl	_____	_____
5607	Formaldehyde		gl	_____	_____
5608	Toluene Diisocyanate (encapsulating foam)		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
5609	Toluene Diisocyanate (encapsulating foam)		gl		
5610	Aniline (aminobenzene, phenylamine, aniline oil)		gl		
5611	Thiourea (thiocarbamide)		gl		
5612	Chloroform (trichloromethane)		gl		
5613	Formic Acid (hydrogen carboxylic acid; methanoic acid) - used and/or off-spec		gl		
5614	Furan (furfuran; tetrol)		gl		
5615	Mercury		lb		
5616	Mercury		gl		
5617	Phenol (carbolic acid)		lb		
5618	Phenol (carbolic acid)		gl		
5619	Ethyl Acetate		gl		
5620	Aerosols, Toxics, U-listed, not empty		lb		
5621	Asbestos (STATE REGULATED)		lb		
5623	Asbestos (STATE REGULATED)		cy		
5624	Methylenebis(2-chloroaniline), 4,4'- (MOCA)		lb		
5625	Deleted - 5624				
5626	Formaldehyde		lb		
5627	Aniline (aminobenzene, phenylamine, aniline oil)		lb		
5628	Thiourea (thiocarbamide)		lb		
5629	Chloroform (trichloromethane)		lb		
5630	Formic Acid (hydrogen carboxylic acid; methanoic acid) - used and/or off-spec		lb		
5631	Furan (furfuran; tetrol)		lb		
5632	Ethyl Acetate		lb		
5900 - 5999	CHEMICAL DEFENSE EQUIPMENT KITS				
5900	Detector Kit, Chemical Agent (M256) (each kit approx. 1 1/2 lb)		lb		
5901	M258A1 Decon Kit		lb		

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
5902	M258 Decon Kit		lb	_____	_____
5903	M229 Refill Kit		lb	_____	_____
5904	Refill Kit (M58A1)		lb	_____	_____
5905	M58A1 Trainer		lb	_____	_____
5906	M15 Detector Kit		lb	_____	_____
5907	Refill, Kit		lb	_____	_____
5908	Sampling and Anl Kit		lb	_____	_____
5909	M72A1 Skaits		lb	_____	_____
5910	M2 Water Test Kit		lb	_____	_____
5911	M272 Water Test Kit		lb	_____	_____
5912	M18A2 Det Kit		lb	_____	_____
5913	M72A2 Skaits		lb	_____	_____
5914	M58 Refill Kit		lb	_____	_____
5915	M58 Trainer		lb	_____	_____
6000 - 6500	NON-RCRA	n/a			
6000	Non-RCRA Wastes, Misc in containers less than 1 gl		gl	_____	_____
6001	Non-RCRA Wastes, Misc in containers less than 7 lb		lb	_____	_____
6002	Deleted - 6000				
6003	Deleted - 6001				
6004	Non-RCRA Wastes, Misc		lb	_____	_____
6005	Non-RCRA Wastes, Misc		gl	_____	_____
6006	Aerosols, empty		lb	_____	_____
6007	Asbestos and asbestos contaminated wastes		lb	_____	_____
6009	Bromochloromethane		gl	_____	_____
6010	Copper Slag Blasting Grit		lb	_____	_____
6011	Containers, 1 gl or larger, with more than 1 inch of the wastes described in		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
	CLINs 6000-6500				
6012	Ethylene Glycol (diethylene glycol)		gl	_____	_____
6013	Brake Fluid (polypropylene glycol, monobutyl ethers)		gl	_____	_____
6014	Grease		lb	_____	_____
6015	Hydraulic Fluid		gl	_____	_____
6016	Lithium Bromide		gl	_____	_____
6017	Nickel Chloride		gl	_____	_____
6018	Nitrosamine		gl	_____	_____
6019	Pallets		lb	_____	_____
6020	Spill Residue		lb	_____	_____
6021	Spill Residue		gl	_____	_____
6022	Deleted - 6020 - 6021				
6023	Oil, Cutting		gl	_____	_____
6024	Oil, Jet Engine		gl	_____	_____
6025	Oil, Synthetic		gl	_____	_____
6026	Oil, Lube		gl	_____	_____
6027	Ion Exchange Resin (cation exchanger and water)		gl	_____	_____
6028	Potassium Tetraborate		lb	_____	_____
6029	Potassium Tetraborate		gl	_____	_____
6030	Sodium Chloride		lb	_____	_____
6031	Ammonium Chloride		lb	_____	_____
6032	Ammonium Chloride		gl	_____	_____
6033	Wood or debris - with residual amounts of PCP - DDD and/or DDE		lb	_____	_____
6034	Proplylene Glycol (1,2-propanediol) De-icer or coolant		gl	_____	_____
6035	Manganese Phosphate		lb	_____	_____
6036	Sodium Carbonate (soda ash)		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
6037	Zinc Phosphate		gl		
6038	Aluminum Sulfate		lb		
6039	Asphalt		lb		
6040	Dessicant		lb		
6041	Cobalt Sulfate (cobaltous sulfate)		lb		
6042	Rinsing Fluid (aliphatic hydrocarbons)		gl		
6043	Sodium Phosphate		gl		
6044	Aerosol, Anti-Foam Compound (silicone, soap, water)		lb		
6045	Corrosion Preventative Compound (petroleum derivative)		gl		
6046	Sodium Hexametaphosphate (calgon)		lb		
6047	Antisetting Compound Decon Slurry (sodium tripolyphosphate, citric acid, calcium oxide)		gl		
6048	Latex Paint		gl		
6049	Decon Agent, STB, less than 39% chlorine		lb		
6050	Decon Agent, STB, less than 39% chlorine		gl		
6051	Calcium Hypochlorite, less than 39% chlorine		gl		
6052	Bleaching Powder, less than 39% chlorine		lb		
6053	Combustible Liquids (fp 140/F to 199/F)		gl		
6054	Compressed Gas Cylinders		lb		
6055	Decontaminating Agent, DS-2 (less than 12.5 pH)		gl		
6056	Decontaminating Agent, DS-2 (less than 12.5 pH)		lb		
6057	Dielectric Fluid (non PCB)		gl		
6058	Caulking Compound (silcone and butyl)		gl		
6059	Copper Chloride (cupric chloride) waste		gl		
6060	Nickel Sulfamate		gl		
6061	Bromochloromethane Fire Extinguishers-compressed gas cylinder		lb		
6062	Fog Oil (petroleum hydrocarbons;		gl		

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
	petroleum oil)				
6063	Emulsifier (petroleum surfactants)		gl	_____	_____
6064	Sodium Phosphate		lb	_____	_____
6065	Sodium Bicarbonate		lb	_____	_____
6066	Tricresyl Phosphate (tritolyl phosphate)		gl	_____	_____
6067	Urea (carbamide)		lb	_____	_____
6068	Ethylene Glycol Monobutyl Ether/ Ethylene Glycol Monomethyl Ether		gl	_____	_____
6069	Deleted - 6035				
6070	Firefighting Foam (hexylene glycol and dichlorophene)		gl	_____	_____
6071	Calcium Hydroxide		lb	_____	_____
6072	Lubricant, petroleum and synthetic		gl	_____	_____
6073	Corrosion Inhibitor (petroleum distillates, stoddard solvent)		gl	_____	_____
6074	Corrosion Inhibitor (mineral oil, isoparaffin hydrocarbons)		gl	_____	_____
6075	Leak Detection Compound (ethylene glycol, surfactant, water)		gl	_____	_____
6076	Sodium Sulfite		lb	_____	_____
6077	Lubricant		lb	_____	_____
6078	Acetate		gl	_____	_____
6079	Flux, Aluminum & Aluminum Alloy (potassium, sodium lithium chloride & sodium fluoride)		lb	_____	_____
6080	Combustible Liquids (fp 140/F to 199/F)		lb	_____	_____
6081	Asphalt		gl	_____	_____
6082	Copper Sulfate		lb	_____	_____
6083	Graphite		lb	_____	_____
6084	Tallow, Inedible		gl	_____	_____
6085	Organotin		gl	_____	_____
6086	Urethane		gl	_____	_____
6087	Water contaminated with approx. 10% petroleum products		gl	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
6088	Sodium Flurosilicate		lb	_____	_____
6089	Containers, empty, 1 gl or larger with less than 1 inch of the wastes described in CLINs 0500-6500 (uncrushed or crushed)		lb	_____	_____
6090	Ferric Chloride Solution		gl	_____	_____
6091	Manganese Phosphate		lb	_____	_____
6092	Ion Exchange Resin (cation exchanger)		lb	_____	_____
6093	Calcium Hypochlorite, less than 39% chlorine		lb	_____	_____
6094	Ethylenediaminetetraacetic Acid (EDTA)		gl	_____	_____
6095	Diethylenediamine (piperazine)		gl	_____	_____
6096	Lithium Bromide (may be in cartridges)		lb	_____	_____
6097	Dimethyl Sulfoxide (methyl sulfoxide; DMSO)		gl	_____	_____
6098	Petroleum Lubricants (used) contaminated with (but not limited to) diesel and burner fuels, ethylene glycol, water, and dirt		gl	_____	_____
6099	Water contaminated with cutting oil		gl	_____	_____
6100	Oil, mixed, engine, hydraulic, brake, diesel, and heating		gl	_____	_____
6101	Quebracho Extract		lb	_____	_____
6102	Batteries, Magnesium		lb	_____	_____
6103	Sodium Orthosilicate		lb	_____	_____
6104	Sodium Orthosilicate		gl	_____	_____
6105	Calcium Chloride		lb	_____	_____
6107	Containers, empty, less than 1 gl, with less than 1 inch of the waste described in CLINs 0500-6500 (uncrushed or crushed)		lb	_____	_____
6108	Nickel Acetate		gl	_____	_____
6109	Neopentyl Glycol (2,2-dimethyl-1, 3-propanediol)		gl	_____	_____
6110	Polytetramethylene Ether Glycol (polymeg)		gl	_____	_____
6111	Triethylene Glycol (TEG)		gl	_____	_____
6112	Ammonium Sulfate		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
6113	Aluminum Sulfide		lb	_____	_____
6114	Blasting Booth Dusts/Sandblast Media (No RCRA Contaminants)		lb	_____	_____
6115	Containers, empty, that previously contained wastes under CLINs 6000-6500		lb	_____	_____
6116	Forging Compound (mineral oil and graphite)		lb	_____	_____
6117	Water contaminated with any non-RCRA wastes.		gl	_____	_____
6118	Water contaminated with any non-RCRA wastes		lb	_____	_____
6119	Bromochloromethane		lb	_____	_____
6120	Ethylene Glycol (diethylene glycol)		lb	_____	_____
6121	Brake Fluid (polypropylene glycol, monobutyl ethers)		lb	_____	_____
6122	Hydraulic Fluid		lb	_____	_____
6123	Lithium Bromide		lb	_____	_____
6124	Nickel Chloride		lb	_____	_____
6125	Nitrosamine		lb	_____	_____
6126	Oil, Cutting		lb	_____	_____
6127	Oil, Jet Engine		lb	_____	_____
6128	Oil, Synthetic		lb	_____	_____
6129	Oil, Lube		lb	_____	_____
6130	Ion Exchange Resin (cation exchanger and water)		lb	_____	_____
6131	Propylene Glycol (1,2-propanediol) De-icer or coolant		lb	_____	_____
6132	Zinc Phosphate		lb	_____	_____
6133	Rinsing Fluid (aliphatic hydrocarbons)		lb	_____	_____
6134	Sodium Phosphate		lb	_____	_____
6135	Corrosion Preventative Compound (petroleum derivative)		lb	_____	_____
6136	Antisetting Compound Decon Slurry (sodium tripolyphosphate, citric acid, calcium oxide)		lb	_____	_____
6137	Latex Paint		lb	_____	_____
6138	Calcium Hypochlorite, less than 39%		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
	chlorine				
6139	Combustible Liquids (fp 140/F to 199/F)		lb	_____	_____
6140	Dielectric Fluid (non PCB)		lb	_____	_____
6141	Caulking Compound (silcone and butyl)		lb	_____	_____
6142	Copper Chloride (cupric chloride) waste		lb	_____	_____
6143	Nickel Sulfamate		lb	_____	_____
6144	Fog Oil (petroleum hydrocarbons; petroleum oil)		lb	_____	_____
6145	Emulsifier (petroleum surfactants)		lb	_____	_____
6146	Tricresyl Phosphate (tritolyl phosphate)		lb	_____	_____
6147	Ethylene Glycol Monobutyl Ether/ Ethylene Glycol Monomethyl Ether		lb	_____	_____
6148	Firefighting Foam (hexylene glycol and dichlorophene)		lb	_____	_____
6149	Lubricant, petroleum and synthetic		lb	_____	_____
6150	Corrosion Inhibitor (petroleum distillates, stoddard solvent)		lb	_____	_____
6151	Corrosion Inhibitor (mineral oil, isoparaffin hydrocarbons)		lb	_____	_____
6152	Leak Detection Compound (ethylene glycol, surfactant, water)		lb	_____	_____
6153	Acetate		lb	_____	_____
6154	Tallow, Inedible		lb	_____	_____
6155	Organotin		lb	_____	_____
6156	Urethane		lb	_____	_____
6157	Water contaminated with approx. 10% petroleum products		lb	_____	_____
6158	Ferric Chloride Solution		lb	_____	_____
6159	Ethylenediaminetetraacetic Acid (EDTA)		lb	_____	_____
6160	Diethylenediamine (piperazine)		lb	_____	_____
6161	Dimethyl Sulfoxide (methyl sulfoxide; DMSO)		lb	_____	_____
6162	Petroleum Lubricants (used) contaminated with (but not limited to) diesel and burner fuels, ethylene glycol, water, and dirt		lb	_____	_____
6163	Water contaminated with cutting oil		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST.QTY.	UNIT	UNIT PRICE	AMOUNT
6164	Oil, mixed, engine, hydraulic, brake, diesel, and heating		lb	_____	_____
6165	Nickel Acetate		lb	_____	_____
6166	Neopentyl Glycol (2,2-dimethyl-1, 3-propanediol)		lb	_____	_____
6167	Polytetramethylene Ether Glycol (polymeg)		lb	_____	_____
6168	Triethylene Glycol (TEG)		lb	_____	_____
8000 - 8099	MEDICAL ITEMS (NON-RCRA)	n/a			
8000	Storage container placed at pick-up site.		ea	_____	_____
8001	Medical Items, non-controlled, condemned, (Non-RCRA). Incineration required (see C.73).		lb	_____	_____
8002	Medical Items, non-controlled, condemned, (Non-RCRA)		lb	_____	_____

Table A3

DRMS PCB CLIN List

ITEM NO.	SUPPLIES/SERVICES	EST. QTY.	UNIT	UNIT PRICE	AMOUNT
7000 - 7099	POLYCHLORINATED BIPHENYLS (PCBs) (40 CFR PART 761)	n/a			
7000 - 7099	Articles (other than transformers & capacitors) 500 ppm and over PCB		lb	_____	_____
7001	Articles (other than transformers & capacitors) 500 ppm and over PCB (drained)		lb	_____	_____
7002	Articles (other than transformers & capacitors) 50-499 ppm PCB		lb	_____	_____
7003	Articles (other than transformers & capacitors) 50-499 ppm PCB (drained)		lb	_____	_____
7004	Articles (other than transformers & capacitors) less than 50 ppm PCB		lb	_____	_____
7005	Articles (other than transformers & capacitors) less than 50 ppm PCB (drained)		lb	_____	_____
7006	Mixed PCB items		lb	_____	_____
7007	Transformers 500 ppm and over PCB		lb	_____	_____
7008	Transformers 500 ppm and over PCB (drained)		lb	_____	_____
7009	Transformers 500 ppm & over PCB (sealed)		lb	_____	_____
7010	Transformers 50-499 ppm PCB		lb	_____	_____
7011	Transformers 50-499 ppm PCB (drained)		lb	_____	_____
7012	Transformers less than 50 ppm PCB		lb	_____	_____
7013	Transformers less than 50 ppm PCB (drained)		lb	_____	_____
7014	Small Capacitors 500 ppm and over PCB		lb	_____	_____
7015	Large Capacitors 500 ppm and over PCB		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST. QTY.	UNIT	UNIT PRICE	AMOUNT
7016	Small Capacitors 500 ppm and over PCB (drained)		lb	_____	_____
7017	Large Capacitors 500 ppm and over PCB (drained)		lb	_____	_____
7018	Small Capacitors 50-499 ppm PCB		lb	_____	_____
7019	Large Capacitors 50-499 ppm PCB		lb	_____	_____
7020	Small Capacitors 50-499 ppm PCB (drained)		lb	_____	_____
7021	Large Capacitors 50-499 ppm PCB (drained)		lb	_____	_____
7022	Small Capacitors less than 50 ppm PCB		lb	_____	_____
7023	Large Capacitors less than 50 ppm PCB		lb	_____	_____
7024	Small Capacitors less than 50 ppm PCB (drained)		lb	_____	_____
7025	Large Capacitors less than 50 ppm PCB (drained)		lb	_____	_____
7026	Sweeping Compound, PCB contaminated		lb	_____	_____
7027	Pallets, PCB contaminated		lb	_____	_____
7028	Debris (example: rags, cans, drums, wood) PCB contaminated		lb	_____	_____
7029	Soil, PCB contaminated		lb	_____	_____
7030	Liquid 500 ppm and over PCB		lb	_____	_____
7031	Liquid 50-499 ppm PCB		lb	_____	_____
7032	Liquid less than 50 ppm PCB		lb	_____	_____

ITEM NO.	SUPPLIES/SERVICES	EST. QTY.	UNIT	UNIT PRICE	AMOUNT
7033	Liquid and/or solid mixtures with PCBs less than 50 ppm may be contaminated with (but not limited to) solvents, oils, water, acid sludges (disposal may be required at a facility with TSCA and RCRA permits)		lb	_____	_____
7034	Liquid and/or solid mixtures with PCBs 50-499 ppm may be contaminated with (but not limited to) solvents, oils, water, acid sludges (disposal may be required at a facility with TSCA & RCRA permits)		lb	_____	_____
7035	Liquid and/or solid mixtures with PCBs 500 ppm and over may be contaminated with (but not limited to) solvents, oils, water, acid sludges (disposal may be required at a facility with TSCA and RCRA permits)		lb	_____	_____
7036	PCB contaminated sludge (over 500 ppm)		lb	_____	_____
7037	PCB contaminated sludge (50-499 ppm)		lb	_____	_____
7038	PCB contaminated sludge (less than 50 ppm)		lb	_____	_____
7039	Debris (example: rags, cans, drums, wood, soil) with water; PCB contaminated		lb	_____	_____

APPENDIX B:

METAL PLATING WASTE CATEGORY (HIGH INTEREST)

CLIN	Supplies/Services	Unit*	Category
2900-3099[a]	Metal plating/metal stripping waste	N/A	Metal Plating
2041	Plating waste, may be contaminated with (but not limited to) heavy metals	lb	EP Toxic
2128	Plating waste, may be contaminated with (but not limited to) heavy metals	gl	EP Toxic
2130	Plating waste, may be contaminated with (but not limited to) chromium	lb	EP Toxic

*lb = pound; gl = gallon.
NOTE: N/A = not applicable.

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[a]CLINs 2914 and 2924 not included because they are sludges.

APPENDIX C:

BATTERIES AND BATTERY ELECTROLYTES CATEGORY (HIGH INTEREST)

CLIN	Supplies/Services	Unit*	Category
0500-0599	Batteries	N/A	Batteries
1309	Battery electrolyte (sulfuric acid)	gl	Corrosive Acids
1333	Battery electrolyte (sulfuric acid)	lb	Corrosive Acids
6102	Batteries, magnesium	lb	Non-RCRA

*gl = gallon; lb = pound.
NOTE: N/A = not applicable.

APPENDIX D:

SLUDGE CATEGORY (HIGH INTEREST)

CLIN	Supplies/Services	Unit	Category
1362	Chromic acid sludge, may be contaminated with (but not limited to) heavy metals, paints, and dirt	lb	Corrosive Acids
1366	Nitric acid sludge	lb	Corrosive Acids
1367	Sodium bisulfate sludge (sodium acid sulfate sludge)	lb	Corrosive Acids
1370	Hydrochloric acid sludge	lb	Corrosive Acids
1374	Sulfuric acid sludge with (but not limited to) water (approx. 50%) sodium bicarb, and lead sulfate	lb	Corrosive Acids
1560	Sulfuric acid sludge	lb	Corrosive Acids
1561	Phosphoric acid sludge	gl	Corrosive Acids
1565	Chromic acid sludge, may be contaminated with (but not limited to) heavy metals, paints, and dirt	gl	Corrosive Acids
1569	Nitric acid sludge	gl	Corrosive Acids
1570	Sodium bisulfate sludge (sodium acid sulfate sludge)	gl	Corrosive Acids
1573	Hydrochloric acid sludge	gl	Corrosive Acids
1578	Sulfuric acid sludge with (but not limited to) water (approx. 50%) sodium bicarb, and lead sulfate	gl	Corrosive Acids
1680	Sodium hydroxide sludge	lb	Corrosive Base
1907	Sodium hydroxide sludge	gl	Corrosive Base
2025	Skimmer sludge contaminated with cadmium	lb	EP Toxic
2026	Sludge contaminated with lead and mercury	lb	EP Toxic
2027	Sludge contaminated with trivalent chrome	lb	EP Toxic
2029	Phosphate sludge, may be contaminated with (but not limited to) heavy metals, paints, and dirt	lb	EP Toxic

continued-

APPENDIX D - continued

CLIN	Supplies/Services	Unit	Category
2030	Zinc phosphate sludge, may be contaminated with (but not limited to) heavy metals, paints and dirt	lb	EP Toxic
2031	Aluminum coating solution/sludge, may be contaminated with (but not limited to) heavy metals, nitrating acids, salts, paints, and oils	lb	EP Toxic
2035	Manganese phosphate sludge, may be contaminated with (but not limited to) heavy metals, cyanides, nitrating acids, and solvents	lb	EP Toxic
2039	Electroplating sludges, may be contaminated with (but not limited to) heavy metals	lb	EP Toxic
2042	Plating sludge, may be contaminated with (but not limited to) chromium	lb	EP Toxic
2102	Skimmer sludge contaminated with cadmium	gl	EP Toxic
2103	Sludge contaminated with lead and mercury	gl	EP Toxic
2104	Sludge contaminated with trivalent chrome	gl	EP Toxic
2108	Phosphate sludge, may be contaminated with (but not limited to) heavy metals, paints, and dirt	gl	EP Toxic
2109	Zinc Phosphate, sludge may be contaminated with (but not limited to) heavy metals, paints, and dirt	gl	EP Toxic
2111	Aluminum coating solution/sludge, may be contaminated with (but not limited to) heavy metals, nitrating acids, salts, paints, and oils	gl	EP Toxic
2115	Manganese phosphate sludge, may be contaminated (but not limited to) heavy metals, cyanides, nitrating acids, and solvents	gl	EP Toxic
2119	Lead azide sludge (nonreactive/non-explosive per U.S. Bureau of Mines testing)	lb	EP Toxic

continued-

APPENDIX D - continued

CLIN	Supplies/Services	Unit	Category
2122	Debris contaminated with lead azide sludge (nonreactive/non-explosive per U.S. Bureau of Mines testing)	lb	EP Toxic
2123	Electroplating sludges, may be contaminated with (but not limited to) heavy metals, petroleum products, solvents and cyanides	gl	EP Toxic
2129	Plating sludge, may be contaminated with (but not limited to) chromium	gl	EP Toxic
2133	Sludge, may be contaminated with (but not limited to) trivalent chrome, cadmium, heavy metals, and metals	lb	EP Toxic
2141	Sludge, heavy metal hydroxide, contains oil, and grease	lb	EP Toxic
2911	Cyanide plating sludge	gl	Metal Plating/ Metal Stripping
2912	Nickel sludge, may be contaminated with (but not limited to) heavy metals	gl	Metal Plating/ Metal Stripping
2914	Plating treatment wastewater sludge, may be contaminated with (but not limited to) heavy metals	gl	Metal Plating/ Metal Stripping
2924	Plating treatment wastewater sludge, may be contaminated with (but not limited to) heavy metals	lb	Metal Plating/ Metal Stripping
3137	Paint wastewater treatment sludge, may be contaminated with (but not limited to) paint, dirt, heavy metals	lb	Paints
3309	Paint wastewater treatment sludge, may be contaminated with (but not limited to) paint, dirt, heavy metals	gl	Paints
4754	Filter press sludge, contaminated with heavy metals, phenols, halogenated and nonhalogenated solvents, moisture content of 15 to 20% but no free liquids	lb	Solvents
4755	IWTP sludge containing solvents and heavy metals	lb	Solvents

continued-

APPENDIX D - continued

CLIN	Supplies/Services	Unit*	Category
2921	Cyanide plating sludge	lb	Metal Plating/ Metal Stripping
2922	Nickel sludge, may be contaminated with (but not limited to) heavy metals	lb	Metal Plating/ Metal Stripping
3310	Paint, partially solidified (solids, sludges, liquids, or any combination of solids, liquids, and/or sludges)	lb	Paints
3911	Oil/oil sludge from water separator or tank	gl	POL
3915	Oil sludge	gl	POL
3935	Oil quench bath sludge, may be contaminated with (but not limited to) cyanides	gl	POL
3941	Oil/oil sludge from water separator or tank	lb	POL
3945	Oil sludge	lb	POL
3961	Oil quench bath sludge, may be contaminated with (but not limited to) cyanides	lb	POL
4581	Methylene chloride sludge	lb	Solvents
4582	Tetrachloroethylene (perchloroethylene) sludge	lb	Solvents
4583	Trichloroethylene sludge	lb	Solvents
4593	Trichloroethane sludge	lb	Solvents
4710	Methylene chloride sludge	gl	Solvents
4711	Tetrachloroethylene (perchloroethylene) sludge	gl	Solvents
4712	Trichloroethylene sludge	gl	Solvents
4727	Trichloroethane sludge	gl	Solvents

*lb = pound; gl = gallon;
NOTE: POL = petroleum, oils, lubricants.

APPENDIX E:

USED OIL CATEGORY (HIGH INTEREST)

CLIN	Supplies/Services	Unit	Category
3907	Grease contaminated with oils	lb	POL
3914	Oil, may be contaminated with (but not limited to) chromium, lead, and solvents	gl	POL
3918	Oil contaminated with water	gl	POL
3921	Oil, may be contaminated with (but not limited to) dirt, water, diesel fuel, thinners, solvents, paint, ethylene glycol, turpentine, and gasoline	gl	POL
3922	Hydraulic fluid with (but not limited to) heavy metals and solvents	gl	POL
3925	Lubricant, petroleum	gl	POL
3926	Oil, synthetic	gl	POL
3929	Oil, may be contaminated with (but not limited to) grease and water	gl	POL
3930	Hydraulic fluid	gl	POL
3932	Petroleum lubricants (used), could be contaminated with (but not limited to) diesel and burner fuels, ethylene glycol, water, and dirt	gl	POL
3934	Oil contaminated with (but not limited to) lube and preservative oil, naptha, water, cyanide, and excess chlorine from cyanide reduction	gl	POL
3936	Oil, may be contaminated with (but not limited to) heavy metals	gl	POL
3944	Oil, may be contaminated with (but not limited to) chromium, lead, and solvents	lb	POL
3948	Oil contaminated with water	lb	POL
3950	Oil, may be contaminated with (but not limited to) dirt, water, diesel fuel, thinners, solvents, paint, ethylene glycol, turpentine, and gasoline	lb	POL

continued-

APPENDIX E - continued

CLIN	Supplies/Services	Unit	Category
3951	Hydraulic fluid with (but not limited to) heavy metals and solvents	lb	POL
3954	Lubricant, petroleum	lb	POL
3955	Oil, synthetic	lb	POL
3956	Oil, may be contaminated with (but not limited to) grease and water	lb	POL
3957	Hydraulic fluid	lb	POL
3958	Petroleum lubricants (used), could be contaminated with (but not limited to) diesel and burner fuels, ethylene glycol, water, and dirt	lb	POL
3960	Oil contaminated with (but not limited to) lube and preservative oil, naptha, water, cyanide and excess chlorine from cyanide reduction	lb	POL
3962	Oil, may be contaminated with (but not limited to) heavy metals	lb	POL
6013	Brake fluid (polypropylene glycol, monobutyl ethers)	gl	non-RCRA
6014	Grease	lb	non-RCRA
6015	Hydraulic fluid	gl	non-RCRA
6024	Oil, jet engine	gl	non-RCRA
6025	Oil, synthetic	gl	non-RCRA
6026	Oil, lube	gl	non-RCRA
6072	Lubricant, petroleum and synthetic	gl	non-RCRA
6077	Lubricant	lb	non-RCRA
6098	Petroleum lubricants (used) contaminated with (but not limited to) diesel and burner fuels, ethylene glycol, water, and dirt	gl	non-RCRA

continued-

APPENDIX E - continued

CLIN	Supplies/Services	Unit*	Category
6100	Oil, mixed, engine, hydraulic, brake, diesel, and heating	gl	non-RCRA
6121	Brake fluid (polypropylene glycol, monobutyl ethers)	lb	non-RCRA
6122	Hydraulic fluid	lb	non-RCRA
6127	Oil, jet engine	lb	non-RCRA
6128	Oil, synthetic	lb	non-RCRA
6129	Oil, lube	lb	non-RCRA
6149	Lubricant, petroleum and synthetic	lb	non-RCRA
6162	Petroleum lubricants (used) contaminated with (but not limited to) diesel and burner fuels, ethylene glycol, water, and dirt	lb	non-RCRA
6164	Oil, mixed, engine, hydraulic, brake, diesel, and heating	lb	non-RCRA

*lb = pound; gl = gallon.
NOTE: RCRA = Resource Conservation and Recovery Act.

APPENDIX F:

UNIT COST SUMMARIES PER CLIN (NON-AMC)

Clin	Unit	Quantity	Unit Cost, $		
			Maximum	Minimum	Average
0001	EA	7	30.00	10.00	20.53
0001	GL	26	6.00	.05	2.98
0001	LB	16	6.00	6.00	6.00
0002	EA	259	25.00	0.00	3.43
0002	EW[a]	3	25.00	25.00	25.00
0002	LB	13	4.00	.50	1.83
0003	EA	27	16.33	1.81	11.07
0004	EA	899	16.33	0.00	11.52
0005	EA	387	10.00	1.00	7.06
0005	GL	1	9.00	9.00	9.00
0005	LB	207	6.00	1.60	2.79
0006	EA	764	0.00	0.00	0.00
0006	GL	81	8.00	4.31	6.25
0006	LB	192	6.15	6.15	6.15
0010	GL	13	5.00	5.00	5.00
0013	GL	1360	5.00	5.00	5.00
0014	LB	150	.40	.40	.40
0015	GL	660	3.42	3.42	3.42
0017	GL	6	76.29	76.29	76.29
0018	GL	55	3.00	3.00	3.00
0020	GL	4	4.00	4.00	4.00
0020	LB	215	.50	.50	.50
0022	LB	230	.40	.40	.40
0023	LB	722	7.00	7.00	7.00
0024	LB	7808	.55	.55	.55
0026	LB	5	.55	.55	.55
0027	GL	50	1.97	1.97	1.97
0030	GL	50	2.17	2.17	2.17
0031	GL	5	2.17	2.17	2.17
0031	LB	186000	1.00	1.00	1.00
0033	GL	55	15.79	15.79	15.79
0036	GL	165	8.29	8.29	8.29
0039	GL	5	5.00	5.00	5.00
0041	GL	951	1.97	1.97	1.97
0042	LB	104	5.00	5.00	5.00
0045	GL	30	5.50	5.50	5.50
0050	GL	6000	1.92	1.92	1.92
0052	GL	540	6.00	1.97	2.31
0054	GL	63	5.00	5.00	5.00
0056	GL	990	15.79	15.79	15.79
0057	GL	55	1.97	1.97	1.97
0058	GL	312	4.20	4.20	4.20
0062	GL	5	1.97	1.97	1.97
0064	GL	5	5.00	5.00	5.00
0066	GL	140	3.10	3.10	3.10
0071	GL	35	3.97	3.97	3.97
0077	GL	110	5.00	5.00	5.00
0081	GL	1	5.00	5.00	5.00
0083	GL	100	1.97	1.97	1.97
0089	GL	80	8.29	8.29	8.29
0090	GL	278	8.29	5.00	5.12
0091	GL	1320	6.00	6.00	6.00

[a]Apparent error in entry to database by DRMS; assume "EW" should be "EA" for each.

APPENDIX F - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
0092	DR	1	528.59	528.59	528.59
0092	GL	3053	6.00	2.90	3.79
0094	GL	8350	2.90	2.90	2.90
0095	GL	5	6.00	4.75	5.25
0098	GL	30	2.00	2.00	2.00
0101	LB	57	.38	.38	.38
0103	GL	10	5.00	5.00	5.00
0104	GL	495	2.67	2.07	2.55
0106	GL	165	10.00	10.00	10.00
0106	LB	346484	.11	.11	.11
0107	GL	280	1.97	1.97	1.97
0107	LB	9	2.09	2.09	2.09
0108	GL	185	3.10	3.10	3.10
0109	LB	850	.36	.36	.36
0112		0	0.00	0.00	0.00
0112	LB	1601	.36	.36	.36
0113	GL	6	10.00	10.00	10.00
0114	GL	612	5.00	5.00	5.00
0116	GL	33	5.00	5.00	5.00
0118	GL	1045	5.00	5.00	5.00
0125	GL	55	7.50	7.50	7.50
0126	GL	140	3.10	3.10	3.10
0132	GL	110	5.00	5.00	5.00
0136	LB	75	5.00	5.00	5.00
0137	GL	200	2.00	2.00	2.00
0145	LB	200	1.00	1.00	1.00
0147	LB	250	.40	.40	.40
0151	EA	9	30.00	30.00	30.00
0151	LB	3646	1.00	1.00	1.00
0153	GL	15	3.00	3.00	3.00
0154	GL	2	4.50	4.50	4.50
0154	LB	4150	6.00	6.00	6.00
0155	GL	2255	2.91	2.91	2.91
0158	LB	81	.50	.50	.50
0159	GL	8	4.00	4.00	4.00
0160	LB	2	.50	.50	.50
0161	GL	479	2.80	2.80	2.80
0162	LB	490	.50	.50	.50
0163	GL	10	3.60	3.60	3.60
0164	LB	517	.35	.35	.35
0203	EA	4	4.00	4.00	4.00
0205	GL	15	2.60	2.60	2.60
0206	LB	4500	.50	.50	.50
0210	EA	18	4.00	4.00	4.00
0211	GL	3	4.00	4.00	4.00
0211	LB	1	.50	.50	.50
0214	EA	2	8.00	8.00	8.00
0221	EA	12	4.00	4.00	4.00
0224	EA	38	4.00	4.00	4.00
0225	EA	1	4.00	4.00	4.00
0244	EA	10	4.00	4.00	4.00
0245	EA	37	4.00	4.00	4.00
0305	GL	1	.50	.50	.50
0378	GL	950	.90	.90	.90
0500	LB	13482	2.00	.05	1.34
0501	LB	198490	16.00	.05	5.21
0502	LB	28994	1.30	.45	.63
0503	LB	5721	4.00	.05	1.12

APPENDIX F - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
0504	LN	130	.93	.93	.93
0506	LB	20	.45	.45	.45
0507	LB	1756	3.50	.33	1.32
0508	LB	34420	2.00	.38	.78
0509	LB	1	4.00	4.00	4.00
0517	GL	1	4.00	4.00	4.00
0600	LB	13598	7.00	.20	4.74
0612	LB	33	5.35	2.00	3.68
1013	GL	4	5.00	5.00	5.00
1039	GL	30	2.99	2.99	2.99
1063	GL	485	3.60	3.60	3.60
1200	LB	908	6.00	.35	1.31
1201	5L[b]	5	.30	.30	.30
1201	EA	78	0.00	0.00	0.00
1201	GL	479	4.00	0.00	1.51
1201	LB	321656	16.00	0.00	1.53
1202	LB	10000	.56	.56	.56
1203	LB	36925	.35	.35	.35
1215	LB	1	.50	.50	.50
1300	EA	1	10.00	10.00	10.00
1300	GL	27	18.00	.05	6.29
1300	LB	31	1.00	1.00	1.00
1300	QT	6	15.00	15.00	15.00
1301	LB	66	15.00	3.00	5.40
1302	EA	164	10.00	1.00	3.22
1303	EA	11	12.00	.72	4.76
1304	GL	1500	.70	.70	.70
1304	LB	741	2.00	.10	.90
1305	GL	2608	16.00	.50	2.86
1306	GL	3	1.00	1.00	1.00
1307	GL	30	2.99	2.99	2.99
1309	GL	16951	7.00	.50	3.30
1309	LB	30	2.99	2.99	2.99
1311	GL	5	2.00	2.00	2.00
1315	GL	100	1.00	1.00	1.00
1317	GL	657	8.00	1.00	4.58
1320	PT	4	6.00	6.00	6.00
1506	LB	2	5.00	5.00	5.00
1556	GL	2	3.00	3.00	3.00
1561	GL	3	3.25	3.25	3.25
1562	GL	580	16.00	16.00	16.00
1569	LB	2	3.25	3.25	3.25
1651	EA	174	15.00	3.62	10.97
1651	GL	74	8.00	.05	4.50
1652	EA	501	15.00	3.62	10.26
1652	LB	128	2.00	.05	.63
1653	EA	13	15.00	1.00	8.48
1654	EA	20	15.00	.78	7.09
1654	LB	7	2.00	2.00	2.00
1654	PG[c]	5	12.00	12.00	12.00
1655	LB	7877	1.00	.05	.39
1656	GL	1100	6.00	.50	2.19
1658	GL	6	4.90	3.25	3.80
1659	LB	3000	1.50	.60	1.03

[b]Apparent error in entry to database by DRMS; assume "5L" should be "GL" for gallon.
[c]Apparent error in entry to database by DRMS; assume "PG" should be "PT" for pint.

APPENDIX F - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
1660	GL	75	2.82	1.58	2.20
1660	LB	140	1.00	1.00	1.00
1662	GL	14	2.67	2.00	2.45
1665	LB	2	.05	.05	.05
1668	LB	660	.45	.45	.45
1902	GL	201	5.50	3.00	4.30
1908	GL	5	3.00	3.00	3.00
1909	GL	1191	2.50	.83	1.80
1912	GL	60	3.10	3.10	3.10
1912	LB	35	3.10	3.10	3.10
1913	GL	1203	5.00	.05	3.43
1914	LB	5184	1.25	.20	.73
2000	EA	6	35.00	1.56	12.89
2000	GL	27	6.00	1.00	4.22
2000	LB	2	10.19	5.00	7.60
2001	EA	27	35.00	1.00	10.99
2001	LB	91	10.19	.50	3.35
2002	EA	1039	20.00	1.00	8.37
2002	OZ	3	11.00	11.00	11.00
2002	PT	9	14.00	14.00	14.00
2003	BT	14	11.00	11.00	11.00
2003	BX	1	11.00	11.00	11.00
2003	EA	455	20.00	1.56	10.31
2003	LB	101	11.00	.72	5.86
2003	OZ	9	11.00	11.00	11.00
2003	TU	12	11.00	11.00	11.00
2004	LB	29246	1.37	.10	.51
2005	EA	1	1.56	1.56	1.56
2005	GL	3320	16.00	.50	2.47
2006	LB	138	8.00	.05	1.53
2007	GL	56	3.00	.50	1.75
2014	GL	322	3.00	3.00	3.00
2019	GL	50	3.00	3.00	3.00
2100	LB	61140	.60	.20	.47
2101	GL	52	4.00	1.78	3.68
2105	GL	1	2.99	2.99	2.99
2117	LB	2	.62	.62	.62
2118	GL	220	4.90	4.90	4.90
2120	LB	182	3.00	.20	1.47
2121	GL	1855	3.97	1.00	2.31
2126	LB	3600	.40	.40	.40
2131	LB	195	.60	.60	.60
2133	YD	400	195.00	195.00	195.00
2300	EA	136	14.04	1.00	7.51
2300	GL	108	24.30	.50	4.47
2300	LB	3	10.00	8.19	9.10
2300	QT	1	20.00	20.00	20.00
2301	EA	2	15.00	2.67	8.84
2301	LB	37	20.00	.98	4.06
2302	EA	216	16.33	1.81	5.67
2302	LB	6	1.00	1.00	1.00
2302	PT	3	14.00	14.00	14.00
2303	BT	2	14.00	14.00	14.00
2303	EA	118	15.00	1.49	7.77
2303	OZ	4	14.00	14.00	14.00
2304	GL	15	.50	.10	.38
2304	LB	16190	1.20	.10	.68
2305	GL	7798	16.00	.10	3.74
2306	LB	98	5.85	1.00	3.64

APPENDIX F - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
2307	EA	21	10.00	10.00	10.00
2307	LB	1476	2.00	0.00	1.00
2308	GL	200	8.29	1.00	3.58
2309	GL	15	2.99	2.99	2.99
2310	GL	1769	10.00	.05	2.58
2311	GL	3035	4.73	.10	2.31
2314	GL	64	4.73	2.05	3.25
2315	EA	3	1.00	1.00	1.00
2315	GL	2789	3.50	.50	2.69
2316	GL	3971	4.73	.10	2.70
2320	GL	330	.10	.10	.10
2321	GL	5	2.00	2.00	2.00
2321	LB	17	1.00	.10	.40
2322	GL	133	3.19	.10	1.76
2328	GL	53	.10	.10	.10
2329	LB	32962	2.00	.05	.40
2330	GL	30	3.66	1.00	2.33
2332	LB	2585	.33	.33	.33
2340	GL	1	3.35	3.35	3.35
2345	GL	156	5.00	.05	1.71
2359	GL	90	4.00	4.00	4.00
2395	GL	4	.50	.50	.50
2715	GL	17	.50	.50	.50
2800	EA	92	5.00	5.00	5.00
2800	GL	84	9.19	.05	1.61
2800	OZ	2	3.00	3.00	3.00
2801	EA	77	4.00	4.00	4.00
2801	LB	574	9.19	.05	6.79
2802	EA	55	3.00	3.00	3.00
2803	EA	34	3.00	3.00	3.00
2803	GL	10	16.00	16.00	16.00
2804	LB	383	.50	.45	.46
2805	GL	276	23.45	2.00	11.63
2806	LB	22	9.50	.05	4.78
2901	GL	94	5.50	4.00	4.75
2914	GL	2310	3.00	3.00	3.00
2914	LB	5882	3.25	3.25	3.25
2921	GL	50	2.50	2.50	2.50
3002	EA	1	1.56	1.56	1.56
3100	EA	816	16.33	3.39	7.58
3100	GL	55	11.00	1.00	7.25
3100	PT	3	10.00	10.00	10.00
3101	LB	12	2.00	.98	1.66
3102	EA	50	10.00	1.81	6.27
3103	EA	1	25.00	25.00	25.00
3103	LB	48	1.00	1.00	1.00
3104	LB	12756	4.00	.10	.86
3105	G4[d]	50	.85	.85	.85
3105	GL	10345	10.36	.10	3.27
3105	LB	10	2.83	2.83	2.83
3106	GL	2	3.29	3.29	3.29
3106	LB	261	14.00	.33	3.32
3107	GL	123	9.83	.50	2.61
3108	GL	1122	3.80	.05	2.06
3109	GL	7	.50	.50	.50
3110	GL	39	9.83	3.00	5.12

[d]Apparent error in entry to database by DRMS; assume "G4" should be "GL" for gallon.

APPENDIX F - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
3111	GL	16	1.38	1.38	1.38
3112	GL	694	6.35	.05	2.79
3113	GL	16	3.50	.50	1.50
3114	GL	195	9.83	.50	4.03
3150	GL	20	4.00	4.00	4.00
3300	GL	23021	6.50	0.00	2.53
3301	LB	67	4.00	4.00	4.00
3302	GL	165	3.00	3.00	3.00
3303	GL	110	4.50	4.50	4.50
3305	GL	3354	10.36	.25	4.49
3306	LB	17692	.90	.33	.56
3307	LB	369	3.00	.45	1.07
3308	GL	4000	.63	.63	.63
3309	GL	2090	4.00	4.00	4.00
3350	GL	2603	5.00	5.00	5.00
3400	EA	11	25.00	14.00	21.33
3401	EA	21	25.00	5.60	16.39
3401	LB	15	35.00	5.00	8.00
3402	EA	181	20.00	9.00	12.50
3403	EA	98	20.00	3.96	13.69
3404	LB	958	7.00	.10	2.83
3405	GL	1175	32.00	.05	6.91
3406	EA	157	5.71	5.71	5.71
3406	LB	129	5.00	5.00	5.00
3410	GL	32	.05	.05	.05
3410	LB	80	2.60	1.50	2.03
3411	GL	10	20.00	5.00	10.00
3416	LB	300	4.00	1.50	2.33
3417	GL	80	5.00	5.00	5.00
3420	LB	147	3.40	1.50	1.88
34405	GL	2	5.00	5.00	5.00
3560	GL	55	3.00	3.00	3.00
3603	GL	4335	3.00	3.00	3.00
3700	EA	39	3.39	3.39	3.39
3700	GL	38	3.00	3.00	3.00
3701	LB	345	1.00	.05	.92
3702	EA	3	1.81	1.81	1.81
3704	LB	240	.40	.40	.40
3705	GL	2107	4.24	.50	2.50
3705	LB	30	.50	.50	.50
3707	GL	874	6.00	.05	2.70
3708	GL	10	6.00	6.00	6.00
3709	GL	10	.50	.50	.50
3710	GL	269	.50	.50	.50
3711	GL	10	1.00	1.00	1.00
3717	LB	10	.50	.50	.50
3720	LB	736	.50	.40	.45
3900	EA	54	11.50	3.39	8.46
3900	GL	11	9.83	.50	5.07
3902	EA	18	16.33	1.81	6.79
3904	GL	1	.12	.12	.12
3904	LB	18427	2.00	.10	.59
3905	GL	19567	16.00	.10	2.30
3905	LB	275	2.00	2.00	2.00
3907	LB	24500	1.07	1.07	1.07
3909	GL	953	3.00	.10	1.64
3910	GL	201	1.91	.90	1.27
3911	GL	75830	4.80	1.00	2.50
3914	GL	6003	4.73	.50	1.92

APPENDIX F - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
3915	GL	250	3.00	3.00	3.00
3916	GL	9993	3.50	.05	.77
3918	GL	13076	3.59	.50	2.04
3919	LB	350	1.58	.24	.91
3920	GL	1870	3.00	.31	2.45
3920	LB	1	2.25	2.25	2.25
3921	GL	116997	4.73	0.00	2.61
3921	LB	340	.50	.50	.50
3922	GL	226	2.67	2.52	2.60
3923	GL	20	4.73	3.00	3.86
3924	GL	40	1.00	1.00	1.00
3925	GL	2228	3.59	.50	2.76
3926	GL	260	2.84	2.00	2.42
3928	GL	18017	3.00	.60	2.09
3929	GL	8658	3.00	.50	2.25
3929	LB	500	2.67	2.67	2.67
3930	GL	125	3.59	.74	1.39
3932	GL	400	1.50	1.50	1.50
3933	GL	1154	4.00	4.00	4.00
4105	GL	45	2.00	2.00	2.00
4200	EA	111	20.48	20.48	20.48
4200	GL	4	10.00	10.00	10.00
4201	EA	63	9.48	8.88	9.18
4201	LB	41	7.00	.82	4.58
4202	LB	208	.93	.93	.93
4203	EA	22	45.00	3.15	16.50
4204	GL	9	10.00	10.00	10.00
4204	LB	451	6.00	.68	5.68
4205	GL	1	3.00	3.00	3.00
4207	GL	1	5.70	5.70	5.70
4500	EA	18	30.00	3.31	10.96
4500	GL	241	36.00	.50	11.90
4500	PT	285	18.00	18.00	18.00
4502	EA	16	45.00	6.22	16.09
4504	LB	1064	2.50	1.25	1.67
4505	GL	7446	16.00	.10	4.11
4505	LB	1045	3.22	3.22	3.22
4506	LB	58	5.00	2.00	3.13
4507	GL	189	2.33	.50	1.21
4518	GL	306	5.84	.10	2.62
4519	GL	53	6.00	5.00	5.50
4520	GL	766	6.00	.50	3.06
4522	GL	1	1.00	1.00	1.00
4526	GL	311	9.47	.10	5.25
4527	GL	11	3.10	2.33	2.72
4527	LB	1	6.00	6.00	6.00
4528	GL	2537	8.50	2.04	6.26
4528	LB	1190	8.50	2.04	5.27
4529	GL	170	8.50	.50	3.25
4531	GL	110	3.00	3.00	3.00
4532	GL	668	8.00	.10	3.40
4533	GL	1	3.00	3.00	3.00
4536	GL	27	6.00	.05	3.26
4700	GL	1	1.65	1.65	1.65
4704	GL	2371	16.00	.05	7.40
4704	LB	3625	9.47	9.47	9.47
4705	GL	30606	16.00	.10	6.54
4706	GL	73	5.00	2.00	3.00
4709	GL	130	8.50	8.50	8.50

APPENDIX F - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
4714	GL	192	6.00	6.00	6.00
4715	GL	550	5.25	3.00	4.50
4716	GL	350	9.47	9.47	9.47
4719	LB	2155	1.57	1.13	1.26
4720	GL	39120	10.36	2.20	4.94
4720	LB	1200	3.00	3.00	3.00
4721	LB	1591	2.57	.50	.91
4722	GL	3054	12.00	.10	7.40
4723	GL	5	16.00	16.00	16.00
4725	GL	253	5.00	3.84	4.28
4731	GL	5345	5.50	1.95	3.96
4732	GL	1032	5.50	.75	2.62
4736	GL	210	3.23	3.23	3.23
4738	GL	25	6.07	6.07	6.07
4740	GL	7	9.47	9.47	9.47
4742	GL	15595	4.00	1.43	3.85
4818	GL	1	.50	.50	.50
5000	EA	17	4.70	3.10	3.90
5000	GL	17	4.00	1.00	3.14
5001	GL	1	2.00	2.00	2.00
5001	LB	6	8.00	8.00	8.00
5002	EA	2	2.40	2.40	2.40
5003	LB	5	.60	.60	.60
5005	GL	4416	9.47	.10	1.68
5005	LB	55	2.00	2.00	2.00
5006	LB	6	3.50	3.50	3.50
5007	GL	3532	8.00	1.50	5.33
5010	GL	1057	6.00	2.00	3.31
5011	GL	900	8.00	.50	3.28
5012	GL	10	4.00	4.00	4.00
5025	GL	55	2.25	2.25	2.25
5500	LB	260953	2.00	0.00	.56
5501	GL	5	3.00	3.00	3.00
5501	LB	515	.52	.52	.52
5502	DR	11	600.00	115.68	236.76
5502	LB	3560	.24	.24	.24
5503	LB	380	1.00	1.00	1.00
5504	LB	90	.65	.10	.37
5507	GL	250	1.50	1.50	1.50
5600	EA	8	16.33	12.29	12.87
5600	GL	80	5.00	1.00	3.75
5600	PT	45	25.00	25.00	25.00
5601	EA	6	16.33	4.74	14.40
5601	LB	276	12.19	.90	2.55
5602	EA	400	16.33	1.00	6.95
5602	GL	1	3.15	3.15	3.15
5603	EA	12	16.33	3.15	15.13
5603	OZ	8	18.00	18.00	18.00
5604	LB	181362	1.57	.10	.77
5605	GL	484	9.95	.05	3.93
5607	GL	5	1.00	.40	.70
5612	GL	3	4.00	4.00	4.00
5619	GL	2	1.00	1.00	1.00
6000	EA	393	20.00	1.00	7.09
6000	GL	263	5.00	.50	.73
6000	LB	12	.35	.35	.35
6000	QT	1	17.00	17.00	17.00
6001	EA	20	20.00	2.67	11.37
6001	GL	7	4.00	.50	1.67

APPENDIX F - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
6001	LB	162	.98	.50	.56
6002	EA	144	16.33	1.81	4.98
6003	EA	113	20.00	.72	4.92
6003	GL	55	3.00	3.00	3.00
6004	GL	1498	3.55	1.10	3.20
6004	LB	4608	7.19	.18	1.88
6005	GL	3458	16.00	.05	3.11
6005	LB	10200	.95	.95	.95
6006	LB	68	5.00	5.00	5.00
6007	LB	48819	2.00	0.00	.93
6009	GL	170	3.87	.05	1.32
6011		0	0.00	0.00	0.00
6011	GL	55	3.00	3.00	3.00
6011	LB	47917	12.00	0.00	1.19
6012	GL	3424	20.00	1.00	2.89
6013	GL	249	3.00	.10	2.20
6014	LB	2610	2.00	.10	1.59
6015	GL	934	5.50	.10	2.65
6016	GL	1995	3.00	3.00	3.00
6020	LB	31976	1.50	.10	.52
6021	LB	4460	.40	.28	.36
6022	LB	50	.40	.40	.40
6023	GL	55	3.00	3.00	3.00
6025	GL	165	.05	.05	.05
6026	GL	1095	4.50	.50	2.68
6026	LB	525	2.00	.50	1.25
6033	LB	426186	.50	.14	.44
6045	GL	7	4.00	4.00	4.00
6048	GL	23	4.50	3.58	4.32
6049	LB	63131	2.00	.10	1.10
6050	LB	7	.60	.60	.60
6053	GL	4014	2.31	.50	1.73
6055		0	0.00	0.00	0.00
6055	GL	1758	8.29	.10	2.78
6055	LB	25	.10	.10	.10
6056	GL	24	.55	.54	.54
6056	LB	60	1.00	1.00	1.00
6062	GL	505	2.00	2.00	2.00
6068	GL	275	2.00	2.00	2.00
6072	GL	175	3.00	1.60	2.53
6074	GL	35	4.00	4.00	4.00
6076	LB	40	.69	.69	.69
6077	LB	10	1.00	1.00	1.00
6080	LB	199	.60	.60	.60
6089	LB	234316	52.00	0.00	.63
6089	LN*	1	.32	.32	.32
6093	LB	173	.05	.05	.05
6102	LB	27747	1.00	.36	.62
6107	EA	12	.40	.40	.40
6107	LB	72	1.50	0.00	.97
6501	GL	15	3.42	3.42	3.42
7000	LB	1900	.66	.66	.66
7000A	LB	8250	.32	.32	.32
7000A	LB	131	.63	.63	.63
7002	LB	6167	.53	.42	.46
7002A	LB	2700	.50	.50	.50

*Apparent error in entry to database by DRMS; assume "LN" should be "LB" for pound.

APPENDIX F - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
7002A	LB	120	.62	.62	.62
7004	LB	3489	.51	.42	.46
7004A	LB	3050	.29	.29	.29
7005A	LB	325	.27	.27	.27
7007	LB	64372	.82	.48	.61
7007A	LB	3240	.67	.67	.67
7007A	LB	37845	.42	.42	.42
7007A	LB	7340	.65	.62	.64
7007A	LB	6119	.57	.57	.57
7007A	LB	285	.65	.65	.65
7008	LB	4055	.54	.48	.53
7008A	LB	15400	.33	.33	.33
7009A	LB	372	.36	.36	.36
7009A	LB	500	.59	.59	.59
7009A	LB	10856	.62	.62	.62
7010	LB	46922	.97	.42	.49
7010A	LB	908	.47	.47	.47
7010A	LB	1885	.52	.52	.52
7010A	LB	49305	.31	.31	.31
7010A	LB	1980	.50	.47	.49
7010A	LB	1400	.50	.50	.50
7010A	LB	370	.50	.50	.50
7010A	LB	3396	.47	.47	.47
7011A	LB	6794	.27	.27	.27
7012	LB	67366	.57	.42	.48
7012A	LB	2706	.32	.32	.32
7012A	LB	56794	.48	.48	.48
7013	LB	5050	.43	.43	.43
7013A	LB	3500	.27	.27	.27
7014	LB	124	.37	.37	.37
7014A	LB	342	.99	.99	.99
7015	LB	1649	1.60	.97	1.00
7015A	LB	165	1.07	1.07	1.07
7015A	LB	715	1.09	1.09	1.09
7015A	LB	5400	1.02	1.02	1.02
7015A	LB	241	.97	.97	.97
7019	LB	35	.47	.47	.47
7027	LB	580	.33	.33	.33
7028	LB	2027	.63	.42	.57
7028A	LB	5196	.27	.27	.27
7029	LB	8440	.36	.27	.31
7029A	LB	510	.27	.27	.27
7030	LB	2818	.78	.68	.73
7030A	LB	24021	.47	.47	.47
7031	LB	1570	.48	.43	.46
7031A	LB	16170	.34	.34	.34
7032	LB	3725	.54	.33	.43
7032A	LB	13010	.31	.31	.31
7128A	LB	1800	.65	.65	.65
7129A	LB	1787	.37	.37	.37
7129A	LB	7000	.35	.35	.35
7132A	LB	1200	.30	.30	.30
7132A	LB	5400	.30	.30	.30

NOTE: EA = each; GL = gallon; LB = pound; DR = drum; QT - quart; OZ - ounce; PT - pint; BT - bottle; BX - box; TU - tube; YD = cubic yard.

APPENDIX G:

UNIT COST SUMMARIES PER CLIN (AMC)

CLIN	Unit	Quantity	Unit Cost, $		
			Maximum	Minimum	Average
0001	DM	1	20.00	20.00	20.00
0001	EA	11	30.00	0.00	8.33
0001	GL	4	12.00	10.00	11.00
0002	DM	372	17.00	7.00	16.69
0002	EA	1625	18.00	0.00	9.47
0002	LB	16	9.00	2.00	5.50
0003	EA	3	0.00	0.00	0.00
0004	EA	2	12.00	12.00	12.00
0005	EA	15	10.00	9.00	9.50
0005	LB	2309	5.00	1.71	3.83
0006	GL	120	7.50	4.25	6.27
0009	GL	990	5.20	5.20	5.20
0010	GL	1	.20	.20	.20
0011	GL	2145	1.25	1.25	1.25
0016	DM	670	.18	.18	.18
0016	GL	50	3.00	3.00	3.00
0016	LB	136810	.18	.18	.18
0018	LB	2	.45	.45	.45
0020	GL	50	2.40	2.40	2.40
0020	LB	215	.50	.50	.50
0022	DM	2	17.00	17.00	17.00
0028	GL	110	2.75	2.75	2.75
0030	GL	1430	4.50	4.50	4.50
0031	GL	330	1.20	1.20	1.20
0032	GL	110	1.60	1.60	1.60
0034	GL	3355	1.98	1.98	1.98
0035	GL	55	1.40	1.40	1.40
0036	GL	275	6.00	6.00	6.00
0039	GL	1155	6.00	2.25	4.13
0040	EA	15	100.00	100.00	100.00
0041	GL	1980	1.80	1.80	1.80
0043	LB	24501	.25	.25	.25
0044	LB	310	.75	.75	.75
0046	GL	3155	6.00	2.80	2.98
0048	GL	85	1.60	1.60	1.60
0049	GL	1020	3.00	3.00	3.00
0057	GL	545	6.00	1.75	3.88
0058	GL	5305	1.50	1.50	1.50
0059	GL	825	6.00	6.00	6.00
0060	LB	400	2.00	2.00	2.00
0061	GL	2035	2.20	2.20	2.20
0063	GL	2785	5.00	0.00	3.69
0064	GL	55	4.00	4.00	4.00
0066	GL	49	3.10	3.10	3.10
0069	GL	150	1.30	1.30	1.30
0071	GL	55	5.00	5.00	5.00
0075	GL	3250	4.00	4.00	4.00
0077	GL	55	4.50	4.50	4.50
0080	LB	50	1.00	1.00	1.00
0081	GL	50	2.40	2.40	2.40
0089	GL	20	3.00	3.00	3.00
0089	LB	560	10.00	10.00	10.00
0091	GL	18470	6.00	6.00	6.00
0092	GL	706	6.00	2.90	4.45
0093	GL	15600	2.00	0.00	.55

APPENDIX G - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
0094	LB	840	.32	0.00	.16
0101	GL	330	6.00	6.00	6.00
0104	GL	10	2.67	2.67	2.67
0107	GL	205	1.97	1.40	1.69
0111	GL	50	1.70	1.70	1.70
0111	LB	59	1.36	1.36	1.36
0114	LB	105114	.45	.38	.45
0118	GL	2475	5.00	5.00	5.00
0136	GL	440	5.00	5.00	5.00
0137	GL	385	2.00	2.00	2.00
0147	GL	300	1.65	0.00	.83
0147	LB	1954	.40	.40	.40
0148	LB	58500	.17	0.00	.07
0163	GL	1650	3.60	3.60	3.60
0201	GL	130	2.00	2.00	2.00
0201	LB	250	1.00	1.00	1.00
0205	LB	1200	.70	0.00	.35
0207	GL	35	2.00	2.00	2.00
0211	GL	50	4.00	4.00	4.00
0378	GL	2700	.90	0.00	.24
0381	TN	26	315.00	315.00	315.00
0500	LB	1254	2.00	.45	1.25
0501	LB	872	10.00	3.35	6.91
0503	LB	501	3.35	.38	1.70
0504	LB	25	1.30	1.30	1.30
1200	GL	55	.58	.58	.58
1200	LB	8108	1.00	.20	.54
1201	EA	1	9.48	9.48	9.48
1201	GL	2177	2.02	.30	.72
1201	LB	455933	9.00	0.00	1.22
1203	LB	85	.56	.56	.56
1300	EA	5	3.41	3.41	3.41
1300	GL	10	10.00	8.00	9.71
1301	EA	23	10.45	8.00	9.23
1301	LB	10	2.00	2.00	2.00
1302	EA	12	6.00	1.00	3.50
1303	EA	89	8.50	.72	5.07
1304	LB	2210	2.00	.46	1.13
1305	GL	14666	10.00	0.00	2.38
1305	LB	85	1.25	1.25	1.25
1309	GL	460	9.00	0.00	5.41
1310	GL	710	1.99	1.60	1.66
1311	GL	5179	7.00	7.00	7.00
1313	GL	50	2.09	2.09	2.09
1314	GL	7066	2.00	1.75	1.83
1317	GL	5691	5.00	1.25	2.39
1323	LB	2315	.40	.23	.29
1502	PT	1	16.00	16.00	16.00
1505	GL	10	2.25	2.25	2.25
1555	GL	1477	7.00	7.00	7.00
1556	GL	3066	3.00	.70	1.16
1560	LB	1137	1.15	1.15	1.15
1561	GL	5792	2.16	2.16	2.16
1562	GL	2414	3.88	0.00	2.58
1563	GL	2250	2.29	0.00	1.12
1564	GL	4125	1.80	1.80	1.80
1565	GL	110	1.75	1.75	1.75
1565	LB	350	1.75	1.75	1.75
1568	GL	5583	2.16	1.86	1.94

APPENDIX G - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
1569	GL	8314	5.79	5.79	5.79
1572	GL	40	.10	.10	.10
1575	LB	400	1.00	1.00	1.00
1651	EA	6	16.33	1.00	5.49
1651	GL	1	10.00	10.00	10.00
1652	EA	5	8.00	8.00	8.00
1652	LB	19	5.00	2.00	4.14
1654	EA	20	8.50	8.50	8.50
1655	LB	6483	2.01	.10	.68
1656	GL	11957	7.00	.65	2.21
1658	GL	157	3.50	3.12	3.40
1659	GL	23354	1.41	1.41	1.41
1659	LB	782	.65	.46	.59
1660	GL	25005	6.00	1.36	2.63
1660	LB	9835	1.50	1.36	1.43
1662	GL	220	2.66	2.66	2.66
1668	LB	300	.20	.20	.20
1900	GL	10	3.10	3.10	3.10
1902	GL	1863	3.25	.10	1.54
1908	GL	835	2.50	1.00	1.38
1909	GL	6572	.50	.50	.50
1912	GL	29938	2.76	.10	1.95
2000	EA	3	4.99	4.99	4.99
2001	LB	48	11.60	2.00	5.13
2002	PT	1	14.00	14.00	14.00
2003	EA	838	9.50	9.50	9.50
2004	GL	560	1.00	1.00	1.00
2004	LB	97475	1.00	0.00	.62
2005	GL	3992	5.00	.05	1.84
2007	GL	1	4.00	4.00	4.00
2100	LB	518330	.50	0.00	.17
2108	GL	605	2.50	2.50	2.50
2111	GL	1485	2.16	2.16	2.16
2114	GL	104	.10	.10	.10
2117	LB	18311	.62	0.00	.19
2120	LB	22	.10	.10	.10
2121	GL	3495	3.88	2.10	2.95
2121	LB	660	2.10	2.10	2.10
2124	GL	1320	1.41	1.41	1.41
2125	GL	3150	2.00	2.00	2.00
2125	LB	4850	2.00	2.00	2.00
2126	LB	7505	.40	.38	.39
2127	LB	3236	.28	.28	.28
2128	GL	1200	1.90	1.90	1.90
2129	GL	50	3.00	3.00	3.00
2130	LB	91660	.35	.10	.33
2131	LB	779	.60	.45	.51
2133	CD	240	195.00	195.00	195.00
2136	LB	54726	.50	.10	.37
2137	LB	52323	.05	.05	.05
2142	LB	94817	.20	.20	.20
2143	LB	292600	.18	.18	.18
2300	EA	28	8.00	1.00	3.80
2300	GL	79	11.60	2.00	8.93
2300	LB	2	20.00	20.00	20.00
2300	QT	2	20.00	20.00	20.00
2301	EA	273	12.20	8.00	11.60
2301	LB	80	8.00	2.00	4.73
2302	EA	151	8.95	1.00	2.33

APPENDIX G - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
2302	OZ	7	14.00	14.00	14.00
2302	PT	11	14.00	14.00	14.00
2303	EA	67	8.50	1.49	5.20
2303	KT	5	14.00	14.00	14.00
2303	ML	20	14.00	14.00	14.00
2303	OZ	18	14.00	14.00	14.00
2304	LB	8131	1.15	.10	.80
2305	GL	3877	11.99	0.00	2.77
2305	LB	3	.90	.39	.64
2306	EA	1	1.00	1.00	1.00
2306	LB	16	5.75	1.00	2.58
2307	LB	154	.65	.46	.55
2308	GL	118	2.60	.05	2.02
2310	GL	925	6.00	.50	2.33
2310	LB	105	1.15	1.15	1.15
2311	GL	100	1.99	1.95	1.97
2315	GL	2298	5.00	0.00	1.57
2318	LB	176	.20	.20	.20
2322	GL	35	.50	.50	.50
2323	GL	200	2.65	2.65	2.65
2324	GL	2	.10	.10	.10
2331	LB	108	.23	.23	.23
2351	LB	8	.10	.10	.10
2361	GL	52	1.00	1.00	1.00
2901	GL	880	3.00	3.00	3.00
2903	GL	180	4.34	4.34	4.34
2913	GL	1430	1.56	1.56	1.56
2914	GL	5665	3.00	2.02	2.28
3058	GL	110	1.50	1.50	1.50
3100	EA	2	5.00	5.00	5.00
3100	GL	1	10.00	10.00	10.00
3100	PT	1	20.00	20.00	20.00
3102	EA	20	1.00	1.00	1.00
3103	EA	80	3.20	1.49	2.34
3103	PT	4	14.00	14.00	14.00
3104	GL	40	.46	.46	.46
3104	LB	10109	1.50	.05	.43
3105	GL	2091	10.36	.05	2.49
3106	LB	9	3.99	2.65	3.32
3107	GL	52	5.00	5.00	5.00
3108	GL	455	5.00	.10	1.75
3109	GL	110	4.90	4.90	4.90
3110	GL	170	.05	.05	.05
3112	GL	120	4.90	.50	2.70
3114	GL	1225	1.00	.50	.88
3117	GL	6	.50	.50	.50
3300	GL	15573	5.00	.05	2.46
3300	LB	5235	.05	.05	.05
3301	LB	3246	.65	.34	.46
3304	GL	1830	4.70	0.00	4.34
3305	GL	767	10.36	0.00	2.53
3305	LB	1090	.29	.29	.29
3306	LB	129186	1.10	.05	.40
3307	LB	5960	1.00	0.00	.41
3309	GL	10540	4.00	0.00	1.07
3309	LB	55	0.00	0.00	0.00
3400	GL	3	13.65	13.65	13.65
3401	LB	40	13.65	13.65	13.65
3404	LB	270	.75	.75	.75

APPENDIX G - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
3405	GL	116	13.00	5.33	6.62
3405	HL	1	6.46	6.46	6.46
3409	GL	4	.50	.50	.50
3410	LB	10	4.25	4.25	4.25
3418	LB	460767	.21	.21	.21
3700	EA	44	16.33	15.00	15.22
3700	GL	4	12.20	12.20	12.20
3701	LB	6	12.20	12.20	12.20
3703	EA	36	1.49	1.49	1.49
3704	LB	140	.91	.91	.91
3705	GL	345	4.46	.50	3.14
3707	GL	50	3.25	3.25	3.25
3709	GL	51	4.00	4.00	4.00
3804	LB	350	.50	.50	.50
3900	QT	2	13.00	13.00	13.00
3901	EA	22	9.80	9.80	9.80
3902	PT	1	8.00	8.00	8.00
3904	LB	4325	.36	.25	.27
3905	GL	1026	4.00	.50	1.75
3909	GL	2590	2.42	1.00	2.24
3910	GL	3422	2.25	2.25	2.25
3911	GL	37605	2.25	1.00	1.62
3912	GL	150	2.75	2.75	2.75
3914	GL	556	3.00	2.42	2.86
3915	GL	97301	2.75	1.00	2.55
3916	GL	100	1.50	1.00	1.25
3918	GL	245	3.42	3.42	3.42
3919	LB	4225	.85	.65	.80
3920	GL	165	2.90	2.90	2.90
3921	GL	46561	3.59	0.00	1.77
3922	GL	1155	2.42	1.60	1.76
3924	GL	80	4.00	4.00	4.00
3926	GL	970	1.60	1.25	1.46
3928	GL	1733	3.29	1.92	2.20
3929	GL	275	1.60	1.60	1.60
3930	GL	107	2.65	2.65	2.65
3933	GL	50	.05	.05	.05
3936	GL	69450	6.00	6.00	6.00
3937	GL	1595	1.60	1.60	1.60
4201	EA	3	10.00	9.48	9.74
4201	LB	31	3.00	2.00	2.80
4202	EA	1	5.81	5.81	5.81
4203	EA	246	11.50	5.81	8.89
4204	LB	530	4.44	2.00	2.95
4205	GL	9	6.89	6.89	6.89
4500	EA	2	16.33	16.33	16.33
4500	GL	2	.40	.40	.40
4501	EA	32	25.50	25.50	25.50
4502	EA	215	13.50	1.00	6.99
4503	EA	494	6.50	6.50	6.50
4503	OZ	6	16.00	16.00	16.00
4504	GL	1950	5.25	5.25	5.25
4504	LB	51403	4.00	1.00	1.50
4505	GL	29954	10.36	1.00	3.30
4505	LB	6500	2.00	2.00	2.00
4506	LB	8	1.00	1.00	1.00
4507	GL	1450	3.89	.30	2.70
4518	GL	5	4.95	2.67	4.19
4519	GL	4728	4.00	1.00	2.79

APPENDIX G - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
4520	GL	34	4.14	.50	2.55
4526	GL	406	4.14	2.00	2.98
4527	GL	419	10.36	1.00	3.25
4527	LB	1	4.00	4.00	4.00
4528	GL	6576	8.00	.50	3.55
4529	GL	1395	3.75	.50	.73
4531	GL	50	4.14	4.14	4.14
4533	GL	208	2.00	2.00	2.00
4536	GL	4	2.00	2.00	2.00
4700	GL	25	4.14	4.14	4.14
4703	GL	105	3.00	3.00	3.00
4704	GL	23777	10.36	2.45	3.58
4705	GL	23958	10.36	.50	4.31
4706	GL	10678	3.00	1.40	1.56
4706	LB	55	1.40	1.40	1.40
4712	GL	2132	2.50	2.50	2.50
4714	GL	4545	6.46	5.00	6.32
4715	GL	74	2.50	2.50	2.50
4719	LB	2950	1.50	.75	.94
4720	GL	16463	4.00	.50	2.83
4721	LB	43679	4.00	1.00	1.25
4722	GL	30222	7.46	.50	3.80
4723	GL	252	6.00	3.00	4.50
4725	GL	780	3.00	3.00	3.00
4725	LB	110	3.00	3.00	3.00
4726	GL	100	6.00	6.00	6.00
4729	GL	220	2.50	2.50	2.50
4731	GL	335	5.50	3.88	4.20
4732	GL	7863	4.00	2.27	3.82
4733	LB	25957	1.35	1.04	1.25
4742	GL	10065	1.35	1.35	1.35
5005	GL	2011	5.00	2.35	4.80
5007	GL	103	2.00	.05	1.02
5010	GL	2601	1.67	.50	.65
5011	GL	276	2.50	.50	1.72
5012	GL	206	6.00	2.15	3.43
5015	GL	55	4.19	4.19	4.19
5500	GL	35	3.00	3.00	3.00
5500	LB	188949	1.15	0.00	.44
5501	GL	165	2.15	1.66	1.82
5502	DM	3	150.00	150.00	150.00
5502	DR	2	162.00	162.00	162.00
5504	LB	975	.05	.05	.05
5507	LB	14190	.31	.31	.31
5600	EA	6	10.00	9.47	9.74
5600	GL	8	15.00	15.00	15.00
5600	GM	1576	25.00	25.00	25.00
5601	LB	5	10.00	2.00	4.00
5602	EA	153	18.00	4.75	9.13
5603	EA	373	18.00	8.00	10.50
5603	OZ	2	18.00	18.00	18.00
5604	LB	1279	1.00	.10	.63
5605	GL	447	4.14	2.15	2.89
5612	GL	5	.05	.05	.05
6000	EA	300	3.39	1.00	2.49
6000	GL	13	8.60	1.85	6.89
6001	EA	42	5.20	5.00	5.06
6001	LB	112	5.00	.20	4.56
6002	EA	209	6.35	1.00	2.90

APPENDIX G - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
6002	PT	1	11.00	11.00	11.00
6003	EA	404	3.00	.72	1.30
6003	LB	2	11.00	11.00	11.00
6003	OZ	2	11.00	11.00	11.00
6003	WA[a]	1	1.00	1.00	1.00
6004	LB	10329	10.20	.20	1.13
6005	GL	380	6.00	1.26	2.98
6005	LB	327	.10	.10	.10
6006	LB	1700	.50	.50	.50
6007	GL	260	.50	.50	.50
6007	LB	38836	.50	0.00	.37
6011	LB	10954	8.00	0.00	.57
6012	GL	393	3.56	1.85	2.49
6014	LB	9000	.50	.50	.50
6015	GL	370	2.25	2.15	2.20
6019	LB	4600	.45	.45	.45
6020	LB	33115	.40	.19	.24
6021	GL	165	2.15	2.15	2.15
6023	GL	152500	1.00	1.00	1.00
6026	GL	920	2.04	0.00	.71
6031	LB	25	.20	.20	.20
6033	LB	2597595	.31	.10	.17
6039	LB	400	.19	.19	.19
6049	LB	480	5.00	5.00	5.00
6053	GL	1597	3.00	.10	2.27
6054	LB	320	4.00	4.00	4.00
6055	GL	18	8.00	1.00	4.50
6059	GL	15	2.09	2.09	2.09
6068	GL	1	3.00	3.00	3.00
6081	GL	75	2.00	2.00	2.00
6089	LB	73563	2.42	.20	.49
6094	GL	110	2.75	2.75	2.75
6107	LB	200	.58	.58	.58
6114	LB	79200	.18	.18	.18
6810	LB	100	1.15	1.15	1.15
7000	LB	9758	.67	.63	.65
7000A	LB	8262	.99	.32	.41
7000A	LB	3	.37	.37	.37
7000A	LB	4327	.63	.59	.60
7000A	LB	4575	.60	.60	.60
7000A	LB	5280	.63	.63	.63
7001	LB	560	.58	.58	.58
7001A	LB	200	.53	.53	.53
7002	LB	136	.48	.45	.46
7002A	LB	2507	.52	.52	.52
7002A	LB	350	.48	.48	.48
7002A	LB	983	.45	.45	.45
7002A	LB	200	.48	.48	.48
7004A	LB	400	.29	.29	.29
7004A	LB	750	.44	.44	.44
7007	LB	71862	.67	.57	.63
7007A	LB	25858	.67	.42	.48
7007A	LB	2718	.68	.68	.68
7007A	LB	14220	.63	.59	.60
7008	LB	53900	.47	.47	.47
7009	LB	41	.68	.68	.68

[a]WA = unknown code or unit.

APPENDIX G - continued

CLIN	Unit	Quantity	Unit Cost, $ Maximum	Minimum	Average
7009A	LB	6610	.36	.36	.36
7010	LB	11387	.50	.42	.44
7010A	LB	1320	.52	.31	.41
7010A	LB	13964	.50	.50	.50
7010A	LB	6280	.45	.45	.45
7010A	LB	7380	.48	.48	.48
7011	LB	4720	.34	.34	.34
7012	LB	4635	.44	.44	.44
7012A	LB	500	.32	.32	.32
7012A	LB	13991	.50	.50	.50
7012A	LB	650	.44	.44	.44
7014	LB	2549	.43	.37	.41
7014A	LB	3881	.99	.47	.95
7015	LB	5686	1.03	1.00	1.00
7015A	LB	3940	1.09	1.09	1.09
7015A	LB	2065	1.03	1.03	1.03
7015A	LB	810	1.00	1.00	1.00
7015A	LB	7011	1.03	1.03	1.03
7019	LB	4346	.50	.50	.50
7023A	LB	980	.53	.53	.53
7026	LB	150	.33	.33	.33
7026A	LB	1740	.29	.29	.29
7026A	LB	375	.33	.33	.33
7028	LB	11297	.60	.57	.58
7028A	LB	1047	.60	.60	.60
7028A	LB	2360	.60	.60	.60
7028A	LB	501	.63	.63	.63
7029	LB	17210	.33	.33	.33
7030	LB	22283	.80	.72	.73
7030A	LB	350	.78	.78	.78
7031	LB	2764	.48	.39	.45
7031A	LB	2869	.43	.43	.43
7032	LB	2538	.33	.22	.24
7032A	LB	30	.31	.31	.31
7032A	LB	11520	.33	.33	.33
7036	LB	12500	.85	.85	.85
7036A	LB	1390	.85	.85	.85
7036A	LB	766	.85	.85	.85
7128	LB	1	.60	.60	.60
7128A	LB	168	.60	.60	.60
7131	LB	3	.40	.40	.40
7131A	LB	3284	.45	.45	.45

NOTE: DM = drum; EA - each; GL = gallon; LB = pounds; TN = ton; PT = pint; QT = quart; OZ= ounce; KT = kit, ML - millilter; KT - kit; ML - milliliter; GM = gram.

APPENDIX H:

TSD FACILITY QUESTIONNAIRE

Date of Contact: ___/___/___
Individual Collecting Information: _____

General Information

Company Name: _____
Address: _____
_____
Telephone No.: _____

Individual Contacted: _____
Years in Business: _____
Permits (Type & Permit No.): _____
_____
_____
Waste Handling Facility No.: _____
Last Yrs. Annual Sales: _____
Other Locations: _____

Distribution of Sales: Private _____% Public _____%

Within public sector: Federal _____%
State _____%
Local _____%

Have you ever contracted with a Federal government facility for HW TSD? Yes ____ No ____

With whom: _____
_____

End date of last contract: _____
(month/year)

APPENDIX H - continued

Have you ever bid on Army HW TSD? Yes ____ No ____ Because _____
Explain: _____

Have you ever bid on DOD HW TSD? Yes ____ No ____ Because _____
Explain: _____

Would you bid on Army installation HW TSD? Yes ____ No ____
Explain: _____

What services do you provide? (Circle Appropriate Answers):

Treatment	Storage	Disposal	Recycle
onsite	onsite	onsite	onsite
offsite	offsite	offsite	offsite

HW Mgt. Broker Transportation

What is your facility's capacity? _____ tons/day

	Disposal Methods	Disposal Limitations
Radioactive Wastes		
EPA Haz. Waste Types		
Type 1, Ignitable		
Type 2, Corrosive		
Type 3, Reactive		
Type 4, EP Toxic		
Type 5, Non-specific		
Type 6, Specific		

APPENDIX H - continued

	Disposal Methods	Disposal Limitations
Type 7, Acute Haz.		
Type 8, Toxic		
Type 9, Used Oils		
Type 10, Unclassified		
Specific HWs		
Batteries and Battery Acids		
Compressed Gas Cylinders		
Corrosive Acids		
Corrosive Bases		
Paints and Paint Stripping		
Metal Plating/Metal Stripping		
Pesticides		
Photography Wastes		
PCBs		

APPENDIX H - continued

	Disposal Methods	Disposal Limitations
PCPs		
Used Oil		
Contaminated Fuel		
Solvents - Halogenated		
- Non-halogenated		
Asbestos		
Hospital and Laboratory Wastes		
Industrial Waste Treatment Plant Sludges		

How do you handle "mixed/combined" wastes? _____

Area served? States _____

Parts of state (i.e., Northeast 1/4), if not entire state (or list major cities or counties): _____

Are you a waste transporter? Yes ____ No ____

Any special restrictions? _____

If no, who do you recommend transport the wastes? (Name and Address)

_____

APPENDIX H - continued

Are there specific wastes you will not accept? Yes ____ No ____

Specify: _____

_____

Do you repackage wastes for customers? Yes ____ No ____

Do you accept "unknown wastes?" Yes ____ No ____

Under what conditions? _____

_____

For how many states do you have transport permits? _____

For which states do you have HW transport permits? _____

_____

Do you accept empty/nearly empty containers (drums, bottles, cans, etc.)? Yes ____ No ____

Do you typically have limits on quantities accepted in your contracts (minimum or maximum)? Yes ____ Quantity _____

No ____

Pricing Factors

Indicate the significance of the following on unit HW pricing:

	Major	Minor
Waste quantity	_____	_____
Type of waste	_____	_____
Transportation distance	_____	_____
Material Phase (solid, liquid, sludge)	_____	_____
Size of Container (pint bottle, gallon can, 55 gal drum, etc.)	_____	_____
Local regulations	_____	_____
State regulations	_____	_____
Federal regulations	_____	_____
Manner of packaging	_____	_____
Condition of container	_____	_____
Waste concentration	_____	_____

APPENDIX H - continued

What other factors do you consider in determining price? _____

_____

_____

_____

What is your rationale or criteria for pricing? _____

_____

If the client performs the following, is the price reduced?

Waste analysis?	Yes ____	No ____
Pretreatment?	Yes ____	No ____
Labeling?	Yes ____	No ____

How have prices generally changed for disposal?

In the last 12 months?	Increased _____%	Decreased _____%
In the last 3 years?	Increased _____%	Decreased _____%
In the last 5 years?	Increased _____%	Decreased _____%

Have prices for certain types of wastes increased or decreased significantly greater than the average? Yes ____ Which type of wastes _____

_____

No ____

Do you quote rates per waste unit quantity (i.e., $/gal of _____, $/lb of _____)? Yes ____ No ____

Do you quote rates on waste containers separately from waste contents? Yes ____ No ____

Do you quote a fixed price for a waste "lot"? Yes ____ No ____

Do you subcontract out certain TSD operations?

Transport?	Yes ____	No ____
Storage?	Yes ____	No ____
Disposal?	Yes ____	No ____
Transport?	Yes ____	No ____

APPENDIX H - continued

Do you have a minimum price/contract? Yes ____ No ____
What is price _____

Do rates vary with time of year? Yes ____ No ____
Explain: _____
_____
_____

Do you make an inspection of wastes prior to quotation:
Always ____ Never ____ Sometimes ____
Under what conditions? _____

What percentage of time do you give quotes in writing? _____%
What percentage of time do you give quotes verbally? _____%

For what percentage of your contracts do you write proposals in response to Request for Proposals/Quotes? _____%

Do you have a brochure or other document describing your services? Yes ____ No ____
Copy requested _____ Copy Provided _____

Do you have a brochure or other document describing your prices? Yes ____ No ____
Copy Requested _____ Copy Provided _____

Do you have a standard contract? Yes ____ No ____
Copy requested _____ Copy Provided _____

What type of contract do you prefer? _____
_____

What is the typical length of contract? Single Pickup ____ One Year ____
Longer than One Year ____

APPENDIX I:

TSD FACILITY RESPONDENT LIST

Company Name	Address	Phone Number	Contact Name
Aptus	P.O. Box 550 Lakeville, MN 55044	(612) 469-3475	Mike Terrien
Aquatech-Grace Labs, Inc.	P.O. Box 816 Greer, SC 29652	(803) 877-1048	Greg Bowen
BDT (Battery Disposal Technology)	4255 Research Parkway Clarence, NY 14031	(716) 635-6794	Nancy Beebe
Broco, Inc.	2824 N. Locust Rialto, CA 92376	(714) 350-4701	Doug Smith
CECOS International	P.O. Box 3151 Houston, TX 77253	(713) 584-8846	Thomas Klos
Chemical Reclamation Services, Inc.	P.O. Box 69 Avalon, TX 76623	(214) 627-3243	Ron Eubanks
Chemical Resources, Inc.	2904 Fourth National Bank Building Tulsa, OK 74119	(918) 582-6994	John Hughes
Chemical Waste Mgmt. Kettleman Hill Fac.	35251 Old Skyline Rd. Kettleman City, CA 93239	(209) 386-9711	Al Temple
ECOFLO, Inc.	2750 Patterson Street Greensboro, NC 27407	(919) 855-7925	Chris Jubok
Envirosafe Services, of Idaho, Inc.	Missile Case Road 10-1/2 Miles NW of Grandview Grandview, ID 83624	(208) 384-1500	Neil Brill
GSX Government Services, Inc.	P.O. Box 140-902 S. Main Street Saukville, WI 53080	(414) 284-3427	Tom Manthey
Gibraltar Chemical Resources	Highway 155 P.O. Box 248 Winona, TX 75792	(214) 877-3227	Tom Grisham
Ind. Waste Utiliz. Inc.	5601 State Street Ontario, CA 91762	(714) 984-9984	David Alloy

APPENDIX I - continued

Company Name	Address	Phone Number	Contact Name
JC Inc. & Chemical Tech Systems	3650 E. 26th Street Los Angeles, CA 90023	(213) 268-5056	Fred Cluff
LWD, Inc.	P.O. Box 327 Calvert City, KY 42029	(502) 395-8313	Kean McKinney
Malone Service Co.	P.O. Box 709 Texas City, TX 77592-0709	(409) 945-3301	Arthur Malone
Northwest Enviro Service, Inc.	1700 Airport Way S. Seattle, WA 98124	(206) 622-1090	Jim Wilson/ Joe O'Brien
OHM-Resource Recovery	P.O. Box 888 5371 Cook Road Morrow, GA 30260	(404) 361-6181	Dave Parker
Pacific Treatment Corporation	2190 Main Street San Diego, CA 92113	(619) 233-0424	Fred Holloway
Rollins Environ. Services, Inc.	2027 Battleground Rd. Deer Park, TX 77536	(713) 930-2300	Doug Walker
Special Resource Managament, Inc.	200 N. 4th Street Suite 206 Boise, ID 83702	(208) 345-3667	Patrick Stoll
Thermal KEAA, Inc.	454 S. Anderson Rd. Rock Hill, SC 29730	(803) 329-9690	Len Fiume
TRICIL Environmental Management, Inc.	3536 Fite Road Millington, TX 38053	(901) 358-5705	Carter Gray
U.S. Pollution Control, Inc.	Rural Route 2 Box 180A Waynoka, OK 73860	(405) 697-3237	Rex Kraft
UNITEK Environmental Services	2889 Mokumoa Street Honolulu, HI 96819	(808) 834-1444	Randy Harold
Why Wastewater? Inc.	3350 Doniphan Drive El Paso, TX 79922-1648	(915) 581-6602	Roger Chacon

APPENDIX J:

TSD FACILITY
CONTRACTOR SURVEY RESULTS

Services Provided

The HW TSD facilities contacted during our survey appear to represent an industry cross section. Their diverse coverage of waste types and treatment and disposal techniques is illustrated in the list that follows. Those facilities that do not treat, store or dispose of certain wastes due to permit limitations, either will not contract for these wastes or subcontract out these wastes.

On site treatment and disposal operations carried out by survey list participants are extensive. A partial list includes the following operations:

- fuel blending
- neutralization
- detonation
- cylinder decommission
- decanting
- deep-well injection
- land disposal
- impoundment
- containerization
- reclamation
- separation
- solidification
- thermal treatment
  - incineration
  - open burning
  - rotary kiln burning
  - fluid bed destruction
- chemical treatment
  - reaction
  - stabilization
- filtration
  - ultrafiltration
  - reverse osmosis
  - mechanical
- carbon adsorption
- sewer discharge after pretreatment
- precipitation
- recycling
- repackaging
- volume reduction
- consolidation
- fixation

A high percentage of firms contacted either already have or have applied for

for radioactive, explosive and certain medical wastes. Only a few specialty firms handle these wastes.

Some of the companies surveyed have been or are currently DRMS contractors. Most seem flexible to contract terms and conditions and are generally willing to work with installations to write equitable contracting agreements. Some of the smaller TSD firms voiced apprehension at their ability to deal with the complex government paperwork, including proposal and contract requirements, special record keeping and detailed invoicing that they suspect may be required by the government.

Hazardous Waste Disposal Price Trends

TSD facility representatives were asked to comment on general pricing trends over the last year, 3 years and 5 years for the hazardous waste disposal industry as a whole. Over 96 percent of the firms surveyed said costs had increased. One of the foremost reasons given for the increase was more stringent Federal regulations for the pre-treatment of "hard hammer" wastes prior to disposal. "Hard hammer" wastes are defined as those which require mandated treatment prior to disposal by EPA regulation as part of RCRA. Other factors contractors stated has affected price were higher insurance premiums, higher landfill costs due to space limitations, and the higher cost associated with disposal of wastes such as cyanide waste, chlorinated solvents, "F" category wastes, sulfide wastes, dioxins, PCP's, radioactives, pyrophorics, infectious hospital wastes, fluoride wastes, heavy metal sludges, explosives, "no-home" wastes and land ban waste in general.

The average price increase estimate was 9.6 percent over the last 12 months. All firms surveyed were in agreement that prices had increased over the last three years. The estimated size of the increase was 53 percent. For the last five years the estimated price increase was 112 percent. One firm which specializes in solvent recycling reported a price decrease of 10 percent during the last five years. There have been significant technical advancements in solvent recycling during the last five years which account for the price reduction.

Moderation of price increases was reported for some wastes. Clean, blendable, burnable liquids are one such case. Incineration costs have also declined slightly due to improved burning technology. More stringent emission regulations and increased demand for incineration capacity could offset this and cause price increases in the future.

Pricing Factors and Cost-Saving Suggestions

Each survey participant was asked "What major factors do you consider when determining price?" Solvent recyclers and fuel blenders both noted that water content and the percent of solids found in waste fuels and solvents affect costs due to the necessity for additional dewatering and solid disposal steps. Contractors performing deep-well injection also noted higher costs associated with treatment and disposal of solids and other non-injectables.

Chemical and physical properties are important factors in price determination for HW disposal. Cost is highly dependent on whether wastes can be disposed of at the contractor's site or whether they must be transported to other facilities for disposal. One cost-saving measure suggested was to require contractors to have the capabilities to treat and dispose of waste at their own facility. Competitive procurements, careful bid analysis, together with tightly written, but fair requests for solicitations are important to overall cost savings.

Analysis time and laboratory fees contribute to pricing. While most firms have on-site laboratories or use the services of off-site certified labs for

waste analysis, testing costs are passed on to the client. It was noted that certified waste analysis by the client prior to acceptance by the TSD firm may reduce costs.

Additional areas such as unscheduled pickups, pickups of small quantities, frequent pickups and containers requiring repackaging increase cost.

Although most companies stated that they did not have a minimum cost per pickup, several did mention the impracticality of doing business for less than $300-$500 per "job". One plan offered by a fuel blending/solvent recycling contractor suggested the placement of a 350 gallon tank on site at installations for periodic pickup at a fixed fee no matter how full it was. This firm felt that this type of cooperation could alleviate costs associated with small inconvenient pickups to avoid violating EPA's mandated 90-day on-site storage limitation.

Several concerns voiced by smaller TSD contractors were (1) their potential inability to handle the volume of waste generated by large Army installations, (2) the diverse waste streams that are generated by Army installations, and (3) the problem of getting the installation to strictly segregate their wastes.

It was suggested that cost-saving measures, if implemented at Army installations prior to shipment of waste, could have significant effect on price. Suggestions included (1) pre-treatment of waste to consolidate/reduce waste volume, i.e., the fewer the number of drums the less handling and lower transportation costs, (2) pre-treatment to concentrate, i.e., high BTU fuels, oils and solvents require less treatment at the contractor site and are generally worth more to end users while low BTU wastes require costly blending, dewatering, etc., (3) prompt payment for services and (4) waste segregation.

Specific Factors Affecting Price

Factors affecting price were discussed with each respondent surveyed. All were asked to indicate the level of significance (major, moderate or minor) to the category's affect on price. Responses are expressed below as a percentage of the respondents and a brief explanation/analysis is given.

	PRICING SIGNIFICANCE		
	Major	**Moderate**	**Minor**
Waste Quantity	60%	12%	28%

Waste quantity was important, particularly to facilities with limited capacity due to RCRA part B permit restrictions. It was suggested that it may be in the Army's best interest to consider larger, more diversified TSD facilities with both multiple disposal and firmly established brokerage capabilities.

Type of Waste	96%	0%	4%

Nearly all TSD's surveyed stated that the type of waste was, by far, the single most significant factor in the determination of pricing.

Transport Distance	28%	16%	56%

The majority of those surveyed felt that the transportation distance was not necessarily significant due to the fact that many TSD's use brokered transportation and add the freight charges as a separate line item to invoices. Those companies that own or manage their own transportation fleet felt distance to be of moderate significance in overall price determination.

Material Phase (solid, liquid, sludge, etc.)	60%	20%	20%

Potential brokering costs come into play for wastes that can not be handled by a TSD at their site, i.e., fuel blenders would find it necessary to dispose of the solids through a subcontractor because they have no means for on site disposal.

Container Size	40%	20%	40%

Container size, for the most part, was not a highly significant price factor except where repackaging or limitations in disposal came into play, i.e., small incinerator opening or limited landfill space available.

Local Regulations	8%	12%	80%

Only minor significance was placed on the local regulations. Most respondents said they hadn't encountered any local regulations.

State Regulations	40%	24%	36%

Pricing effects due to state regulations were mixed according to those surveyed with Texas, South Carolina, California, Kentucky, Wisconsin, Idaho and Washington noting major cost significance.

Federal Regulations	72%	12%	16%

Majority of those interviewed said Federal Regulations significantly effect pricing. Several respondents mentioned that pending land ban waste regulations may significantly increase disposal costs in 1990.

Manner of Packaging	36%	24%	40%
Conditions of Container	36%	16%	48%

Opinion on these factors was mixed. Those who repackage for shipment to meet Department of Transportation (DOT) standards or to broker the material to others deemed these areas to have major pricing significance. Those who treat or dispose of waste on site felt these factors held moderate to minor significance unless original packaging precluded transport and disposal.

Waste Concentration	72%	12%	16%

The vast majority of those surveyed felt that waste stream concentration held major significance in pricing determination.

In summary, the categories surveyed and noted as having the greatest influence on pricing structure are (1) quantity of material, (2) the general type of wastes, (3) the physical and chemical properties of the waste, (4) Federal Regulations and (5) waste stream concentrations.

Surcharges

Surcharging is a common practice for the adjustment of pricing to cover costs of additional or special handling, unknowns and unapparent costs. Surcharges are often imposed by fuel blending TSDs, particularly for low BTU wastes or for waste with an unusually high chlorine content. Liquids processors such as fuel blenders and deep-well injectors often surcharge based on the percentage of solids found in the waste. High solid counts require special or additional disposal methods and, potentially, brokerage fees. Special toxicity problems spur surcharging to cover the cost of worker protective clothing, closed atmosphere breathing apparatus, sophisticated handling equipment, etc. Surcharges may be imposed for fast turnaround laboratory analysis. Unscheduled waste pickups often spur additional cost to the client. Out-of-specification wastes often are

a reason for surcharging. An example might be waste fuel with a significantly higher water content (lower BTU) than originally specified. It was mentioned that the best ways to avoid surcharge penalties are segregation of waste streams, pre-scheduling and pre-analysis.

Service Agreements

Most hazardous materials contractors initiate transport, handling, storage and disposal of generator wastes under some form of written agreement. This agreement has different titles including Service Agreement, Disposal Agreement, Waste Transportation Management Agreement and Hazardous Waste Services Agreement. Although the names are different, most are initiated to accomplish a similar goal which is to enter into a legally binding agreement spelling out the terms and conditions between contractor and client.

This survey included a cross section of TSD firms by size. The 14 Service Agreements (SA) received ranged from a one-page document to a 19-page document.

The majority of SAs referenced attachments in the form of schedules or exhibits. One exhibit generally contained waste material profiles or data concerning the waste type, concentration amount, etc. A second exhibit generally dealt with fee structure, taxes, tariffs and surcharge information.

Many similarities were observed between the SA's received, most containing clauses covering:

- Terms (payment)
- Contract period of performance
- Insurance (amount of coverage maintained)
- Cancellation
- Force Majeure (circumstances beyond control)
- Confidentiality
- Governing Law to Apply
- Title of Waste (who owns it and when)
- Independent Contractor (retention of all rights to company control)
- Notices Between Parties (must be in writing)
- Inspection Analysis Prior to Acceptance of Waste
- Indemnification

Statements of Warranty were included in about 85 percent of SAs. In general, the warranties were simple statements, three to four sentences in length, stating that the contractor:

1. Has the necessary business, professional and technical expertise to handle, store, transport, treat and dispose of waste materials.

2. Has the equipment, plant and employee resources required to perform.

3. Has the ability to handle, store, transport, treat and dispose of waste materials in full compliance with all governmental laws and that it is licensed to do so.

4. Will notify the generator if any licenses, permits or authorizations are lost or in jeopardy of loss during the term of the agreement.

Two common indemnification clauses in SAs are:

1. Customer indemnification - generally stating that the contractor would be held harmless against any customer breach of contract, negligence or willful act or omission resulting in death or injury to person or damage to property and the environment.

2. Contractor indemnification - generally stating that the customer would be held harmless against loss from contractor failure to comply with federal, state or local laws and regulations and from any claim for loss or damage to property and person caused by negligence or willful act or omission by the contractor during handling, collection, transportation, storage or disposal of the waste.

A significant fundamental distinction observed between Army requirements and typical private sector contracts deals with the quotation of rates or fee schedule. Most of the waste contractors surveyed indicated that quotations are usually based on set quantities of specific wastes with final price determination after analysis of the waste. The DRMS, however, typically requests firm fixed rates for hundreds of different wastes, CLINs, based on their estimated total amount over the life of the contract. Some contractors expressed a reluctance to quote in such a manner, stating that the potential to lose money was greater if the actual waste amount was less than originally estimated.

The amount of documentation and general record keeping was seen as a potential hardship for a few smaller contractors because clerical staffing may be insufficient to handle Pick-up Reports, Certificates of Disposal, site visit and analysis notifications, segregation reports, audit trails, manifests, etc. as mandated in DRMS RFPs.

The preparation of detailed manifests and shipping documents was cited as a major difference in DRMS contracting and private sector contracts. The clients often assist in preparation of shipping documentation. It was noted that the price reduction to the Army could be significant if the Army prepared the manifests.

Most contractors were of the opinion that DRMS RFPs were complicated and that contracting with the government would require they have added services necessitating increased costs, staffing, etc. However, most waste contractors were interested in bidding on Army hazardous waste disposal contracts.

APPENDIX K:

REPRESENTATIVE TSD FACILITY PRIVATE-SECTOR CONTRACTS

Service Agreement

104(a)-86

THIS SERVICE AGREEMENT, made and entered into as of the _____ day of _____, 19____, by and between _____, a _____ corporation, ("Company") and Rollins Environmental Services (TX) Inc., a Delaware corporation ("RES").

WHEREAS, Company desires to contract for the hauling and disposal of certain waste material containing polychlorinated biphenyls ("PCBs"); and

WHEREAS, RES will provide such hauling and disposal service according to the terms set forth herein.

NOW, THEREFORE, it is agreed:

1. **TERM.** Subject to the right of either party to terminate this Agreement at any time upon thirty (30) days prior written notice, this Agreement shall automatically terminate on _____ .

2. **PAYMENT.** RES shall invoice Company for the hauling and treatment of Waste at the rates and terms set forth on Schedule "B".

3. **WARRANTY-RES.** To comply with all existing laws, ordinances and regulations of the United States and of any state, county, township or municipal subdivision thereof, or other governmental agency which may be applicable to the removal of Waste, as well as the processing and/or treatment of the Waste. RES shall obtain all permits, licenses and other forms of documentation required in order to comply with such laws and regulations.

4. **RES INDEMNIFICATION.** Following loading and departure from Company's plant, Company shall be relieved of responsibility and RES shall become solely responsible for any and all loss, damage or injury to persons or property and RES shall indemnify and hold Company harmless from any and all liability, damages, costs, claims, demands, and expenses of whatever type or nature, including, but not limited to, pollution or other damage, which shall be caused by, arise out of, or in any manner be connected with the Waste, except as provided in COMPANY WARRANTS AND COMPANY INDEMNIFICATION below. Company understands and agrees that exposure to polychlorinated biphenyls ("PCBs") is perceived by all Federal, State and local regulatory protection and enforcement agencies to be of extreme danger to health and the environment.

5. **COMPANY WARRANTS.** Company represents and warrants that the Waste loaded and removed under this Agreement shall be the Waste defined on Schedule "A", attached hereto and made a part hereof, and has been thoroughly characterized on the waste data sheet submitted to RES. Company agrees to prepare and execute RES' waste data sheet for each shipment of Waste. If the Waste is packaged, Company warrants that such Waste shall be prepared for shipment and packaged in containers specified by 40 CFR Part 761.65-**Storage for Disposal** and by the then current and applicable regulations of the United States Department of Transportation, Environmental Protection Agency or any successors thereto and/or any state, municipal and/or Federal agency having jurisdiction, as the case may be. COMPANY IS HEREWITH NOTIFIED THAT IT MUST COMPLY WITH THE RELEVANT REQUIREMENTS OF 40 CFR PART 761. Company shall be responsible for loading packaged Waste on RES' trailers.

6. **COMPANY INDEMNIFICATION.** Company will indemnify and hold harmless RES from any and all loss, damages, including damage or undue wear and tear to equipment, claims, suits, or costs which shall arise or grow out of any injury to any person or persons or any property (including the person or property of Company or its employees) caused by or resulting in any way from Company's failure to comply with Company's Warranty concerning the Waste. Company shall be responsible for and indemnify RES against any and all liability, damages, costs, claims, demands, and expenses of whatever type or nature resulting from the acts and/or omissions of Company and/or its employees, until departure of RES vechicles from Company's plant.

7. **TITLE.** Following loading and departure from Company's plant, Company shall be relieved of title responsibility and risk of loss for the Waste, and RES shall take title, responsibility and risk of loss. However, title, risk of loss and all other incidents of ownership to non-conforming Waste shall be deemed to revest in the Company at the time revocation of acceptance is communicated to Company and RES shall only be responsible for its own negligence or willful acts.

8. **RES REJECTION.** Company understands and agrees that RES, upon notice to Company, has the absolute and unqualified right to reject any shipment of Waste which does not conform to the description on Schedule "A" (the "Waste Data Sheet") supplied by Company to RES. After any such rejection, RES will, with Company's assistance and approval, pursue all other reasonable means of disposal. If the Waste is rejected, Company shall be obligated (a) to pay the cost of transportation to RES' facility; (b) to pay the cost of return transportation from RES' facility to Company's premises; and (c) to pay all other reasonable charges incurred by RES with the prior consent of Company.

9. **FORCE MAJEURE.** Delays or failure of either party in the performance of its required obligations shall be excused if caused by circumstances beyond the reasonable control of the party affected, including but not limited to, acts of God, strikes, labor holiday, fire, flood, windstorm, explosion, riot, war, sabotage, action or request of governmental authority, accident, inability to obtain material, equipment or transportation, provided that a prompt notice of such delay is given and the parties shall be diligent in attempting to remove such cause(s).

10. **INSURANCE.** RES shall not begin any operations under this Agreement until: (a) it has obtained all the insurance required herein; and (b) it has furnished certificates of insurance to Company. Every certificate of insurance providing the coverages required herein shall contain the following clause: "No reduction, cancellation or expiration of the policy shall become effective until thirty (30) days from the date written notice thereof is actually received by Company."

RES shall take out and maintain for the life of this Agreement (at its own expense unless otherwise specifically set forth) at least the following insurance:

Coverage	**Limits**
Workmen's Compensation	Statutory
Employer's Liability	$100,000 each occurrence
Public Liability (B1 & PD)	$5,000,000 combined single limit
Automobile Liability (B1 & PD)	$5,000,000 combined single limit

The public liability insurance shall include coverage for all RES' contractual liability under the Agreement with Limits of not less than those set forth above. Company agrees, however, that such public liability inssurance need not cover losses, damages, costs, and expenses arising out of bodily injury (including death) to any person or damage to any property caused by or resulting from acts or omissions of the Company, its employees or its agents.

11. **CONTAINERS.** The Waste shall be packaged in compliance with 40 CFR Part 761.65-**Storage for Disposal** with all required labeling and marking.

Rollins Environmental Services (TX) Inc.

This letter, upon receipt by Rollins Environmental Services (TX) Inc. ("RES"), of your acceptance, shall be the agreement between RES and _____ ("Company") with respect to Waste (defined below), term, price and representations:

WARRANTY-RES. To comply with all existing laws, ordinances and regulations of the United States and of any state, county, township or municipal subdivision thereof, or other governmental agency which may be applicable to the removal of Waste. RES shall obtain all permits, licenses and other forms of documentation required in order to comply with such laws and regulations.

RES INDEMNIFICATION. Following loading and departure from Company's plant, if RES provides transportation or, following delivery f.o.b. RES' facility, if Company provides transportation, Company shall be relieved of responsibility and RES shall become solely responsible for any and all loss, damage or injury to persons or property and RES shall indemnify and hold Company harmless from any and all liability, damages, costs, claims, demands, and expenses of whatever type or nature, including, but not limited to, pollution or other damage, which shall be caused by, arise out of, or in any manner be connected with the Waste, except as provided in COMPANY INDEMNIFICATION below.

COMPANY WARRANTS. Company represents and warrants that the Waste loaded and removed under this Agreement shall be the Waste defined on Schedule "A", attached hereto and made a part hereof, and has been thoroughly characterized on the waste data sheet submitted to RES. Company agrees to prepare and execute RES' waste data sheet for each shipment of Waste. If the Waste is packaged, Company warrants that such Waste shall be prepared for shipment and packaged in containers specified by the then current and applicable regulations of the United States Department of Transportation, Environmental Protection Agency or any successors thereto and/or any state, municipal and/or Federal agency having jurisdiction, as the case may be. Company shall be responsible for loading packaged Waste on RES' trailers if RES is providing transportation.

COMPANY IDEMNIFICATION. Company will indemnify and hold harmless RES from any and all loss, damages, including damage or undue wear and tear to equipment, claims, suits, or costs which shall arise or grow out of any injury to any person or persons or any property (including the person or property of Company or its employees) caused by or resulting in any way from Company's failure to comply with Company's Warranty concerning the Waste. Company shall be responsible for and indemnify RES against any and all liability, damages, costs, claims, demands, and expenses of whatever type or nature resulting from the acts and/or omissions of Company and/or its employees, until departure of RES vehicles from Company's plant, if RES provides transportation or, if Company provides transportation, until delivery f.o.b. RES' facility.

1. **TERM.** Subject to the right of either party to terminate this Agreement at any time upon thirty (30) days prior written notice, this Agreement shall automatically terminate on _____ .

2. **PAYMENT.** RES shall invoice Company for the hauling and treatment of Waste at the rates and terms set forth on Schedule "A" attached hereto and made part hereof. RES shall add an amount equal to one and one-half percent (1½%) or the maximum legally permissible amount to invoices which remain unpaid for more than thirty (30) days after date of invoice. Like charges may be made for each subsequent thirty (30) day period that such invoice remains unpaid.

3. **RES REJECTION.** Company understands and agrees that RES, upon notice to Company, has the absolute and unqualified right to reject any shipment of Waste which does not conform to the description of Schedule "A" (the "Waste Data Sheet") supplied by Company to RES. After any such rejection, RES will, with Company's assistance and approval, pursue all other reasonable means of disposal. If the Waste is rejected, Company shall be obligated (a) to pay the cost of transportation to RES' facility if such transportation was performed by RES, and (b) to pay the cost of return transportation from RES' facility to Company's premises (Company having the right to select the carrier) and (c) to pay all other reasonable charges incurred by RES with the prior consent of Company.

4. **TITLE** Following loading and departure from Company's plant, if RES provides transportation or, following delivery f.o.b. RES' facility, if Company provides transportation, Company shall be relieved of title responsibility and risk of loss for the Waste, and RES shall take title, responsibility and risk of loss. However, title, risk of loss and all other incidents of ownership to non-conforming Waste shall be deemed to revest in the Company at the time revocation of acceptance is communicated to Company and RES shall only be responsible for its own negligence or willful acts.

5. **FORCE MAJEURE.** Delays or failure of either party in the performance of its required obligations shall be excused if caused by circumstances beyond the reasonable control of the party affected, including but not limited to, acts of God, strikes, labor holiday, fire, flood, windstorm, explosion, riot, war, sabotage, action or request of governmental authority, accident, inability to obtain material, equipment or transportation, provided that a prompt notice of such delay is given and the parties shall be diligent in attempting to remove such cause(s).

6. **OSHA.** Company represents and warrants that Waste does not contain the following substances in concentrations greater than those specified below:

2-acetylaminofluorene, Chemical Abstracts Service Registry No. 62759	1%
alpha-naphthylamine, Chemical Abstracts Service Registry No. 134327	1%
4-aminodiphenyl Chemical Abstracts Service Registry No. 92671	0.1%
benzidine, Chemical Abstracts Registry No. 92875	0.1%
beta-naphthylamine, Chemical Abstracts Service Registry No. 91598	0.1%
beta-propiolactone, Chemical Abstracts Service Registry No. 57578	1%
bis-chloromethyl ether, Chemical Abstracts Service Registry No. 542881	0.1%
3,3'-dichlorobenzidine.Chemical Abstracts Service Registry No. 91941, and its salts	1%
4-dimethylaminoazobenzene, Chemical Abstracts Service Registry No. 60117	1%
ethyleneimine, Chemical Abstracts Service Registry No. 151564	1%
methyl chloromethyl ether, Chemical Abstracts Service Registry No. 107302	0.1%
4,4'-methylene bis (2-chloroaniline), Chemical Abstracts Service Registry No. 101144	1%
4-nitrobiphenyl, Chemical Abstracts Service Registry No. 92933	0.1%
N-nitrosodimethylamine, Chemical Abstracts Service Registry No. 62759	1%
polychlorinated biphenyls	0.005%

Additions may be made by RES to the foregoing list of substances from time to time, such additions by RES becoming effective and binding after three days' written notice to Company.

Company agrees that all Waste containing asbestos (including actinolite, amosite, anthophyllite, chrysotile, crocidolite, and tremolite) fibers longer than 5 micrometers detectable by phase contrast microscopy shall be subject to the following conditions:

a. The presence of asbestos in the Waste shall be clearly noted on RES' waste data sheet.
b. Waste shall be packaged in closed steel drums bearing a label which conforms with 29 CFR 1910.1001.

Company further represents and warrants that, to the best of its knowledge, Waste does not contain vinyl chloride monomer in a liquid or gaseous form except as specified on RES' waste data sheet.

All previous representations, including but not limited to, proposal(s), purchase order(s) and/or invoice(s), either written or oral are hereby annulled and superseded. No modification shall be binding unless in writing and executed by RES and Company.

Please indicate your agreement to the above recitals by executing and returning a copy of this letter.

ACCEPTED this _____ day of _____ , 19 _____.

_____ ("Company")

BY: _____

Address:

ROLLINS ENVIRONMENTAL SERVICES (TX) INC.
("RES")

BY: _____

Address: P.O. Box 609
Deer Park, Texas 77536

12. **NOTICE.** All notices required pursuant to the terms of this contract shall be made to:

For RES:

Rollins Environmental Services (TX) Inc.
P.O. Box 609
Deer Park, TX 77536

Attn: Sales Manager

For Company:

All previous representations, including but not limited to, proposal(s), purchase order(s) and/or invoice(s), either written or oral are hereby annulled and superseded. No modification shall be binding unless in writing and executed by RES and Company.

Please indicate your agreement to the above recitals by executing and returning this letter.

Rollins Environmental Services (TX) Inc. ("RES")

By: _____

Address: **P.O. Box 609, Deer Park, TX 77536**

ACCEPTED THIS _____ day of _____ 19,___.

_____ ("Company")

By: _____

Address: _____

_____

_____

RES 600-18

UNIFORM TERMS AND CONDITIONS
AGREEMENT
FOR THE DISPOSAL OF
INDUSTRIAL WASTE MATERIAL

THIS AGREEMENT, made and entered into as of the __ day of _____, 19__, by and between Envirosafe Services of Idaho, Inc., a Delaware corporation (hereinafter "ESII") and _____, a _____ corporation (hereinafter "Customer").

WITNESSETH THAT

WHEREAS, Customer desires to dispose of certain Industrial Waste Material (defined below) generated at Customer's industrial facilities; and

WHEREAS, ESII possesses the requisite expertise, facilities and permits to render, in a safe and efficient manner, a disposal service for the disposition of such waste material; and

WHEREAS, the parties desire to set forth uniform terms and conditions under which the services set forth below shall be provided;

NOW, THEREFORE, in consideration of the premises and of the mutual covenants herein contained and intending to be legally bound hereby, the parties hereto agree as follows:

1. DEFINITIONS.

a. "Waste Product Questionnaire" or "WPQ," shall mean the form provided by ESII to be completed by Customer which describes a particular waste stream and includes instructions for its acceptance for disposal attached hereto and incorporated by reference herein. More than one WPQ may be submitted by Customer to ESII for incorporation into

this Agreement (defined below). Each WPQ shall be numbered sequentially (e.g. "Exhibit A-1," "Exhibit A-2," "Exhibit A-3," etc).

b. "Industrial Waste Material" shall mean the raw industrial waste material that is the subject of a particular WPQ.

c. "Facility" shall mean the disposal site provided by ESII for the disposal of the Industrial Waste Material located at Grand View, Idaho.

d. "Agreement" shall mean this Agreement for the Disposal of Industrial Waste Material, including all exhibits attached hereto and incorporated herein.

e. "Uniform Terms and Conditions" shall mean the terms and conditions set forth herein and shall exclude terms and conditions set forth in exhibits incorporated into the Agreement.

2. CONTRACTING PROCEDURE.

a. Customer shall submit to ESII a completed WPQ. Submission of a completed WPQ to ESII shall constitute Customer's request that ESII accept for disposal the Industrial Waste Material described therein.

b. ESII shall indicate its approval of Customer's request and its agreement to dispose of the Industrial Waste Material described in the WPQ under the terms and conditions set forth herein, by returning a copy of the WPQ marked "Approved and Accepted" and signed by an authorized representative of ESII. Any WPQ so approved and signed by ESII shall be attached to and incorporated into this Agreement as Exhibit "A-1," "A-2," "A-3," etc. and made a part hereof as of the date and time of written approval of ESII. Upon such incorporation, the Uniform Terms and Conditions, including all warranties of Customer contained herein, shall apply to the subject WPQ. Any terms and conditions contained in any such WPQ which are inconsistent with the Uniform Terms and Conditions set forth herein shall be null and void and the Uniform Terms and Conditions shall control.

3. NO COMMITMENT.

ESII offers no guarantee or commitment that it will handle any particular type of waste or any particular quantity of waste material upon receipt of a WPQ submitted by Customer.

4. SCOPE OF ESII'S SERVICES.

ESII shall receive Industrial Waste Material delivered by Customer or its subcontractors at the Facility during normal business hours of the Facility, except for disposal Industrial Waste Material which conforms to the description thereof contained in the subject WPQ, and dispose of the Industrial Waste Material at the Facility. ESII shall supervise and direct the unloading of the Industrial Waste Material upon its arrival at the Facility.

5. INSPECTION AND ACCEPTANCE.

a. Prior to or upon arrival at the Facility and prior to acceptance of the Industrial Waste Material by ESII, ESII, in accordance with accepted practices and procedures:

(i) shall have the right to sample and analyze each shipment, including each container, of the Industrial Waste Material in order to establish its conformity with the subject WPQ, and

(ii) shall measure the quantity of Industrial Waste Material contained in each shipment in order to calculate the disposal fee.

b. Nothing herein shall require ESII to perform an exhaustive analysis of the Industrial Waste Material in order to identify each and every constituent or contaminant contained in the Industrial Waste Material, nor shall any such sampling, analysis or measurement relieve Customer of its responsibility for the conformance of the Industrial Waste Material with the specifications set forth in the subject WPQ.

c. Subject to this Section 6, if the analytical results obtained by ESII conform to the specifications set forth in the WPQ, ESII shall accept the Industrial Waste Material,

together with all responsibility and liability in connection therewith, and title shall pass to ESII upon ESII's acceptance of the Industrial Waste Material at the Facility.

d. If the analytical results obtained by ESII indicate that the Industrial Waste Material is non-conforming, ESII shall promptly notify Customer of the following:

(i) the existence of the non-conformity; and
(ii) if the non-conforming Industrial Waste Material can be handled by ESII at the Facility, the additional cost of disposal resulting from such non-conformity; and
(iii) whether such non-conforming Industrial Waste Material unacceptable for disposal at the Facility.

e. For purposes of this Agreement, the Industrial Waste Material shall be deemed to be materially non-conforming if:

(i) disposal of the Industrial Waste Material at the Facility will result in a violation of law, rule or regulation or a permit condition; or
(ii) if analysis of the Industrial Waste Material indicates the existence of material deviations from the specifications, limitations and instructions set forth in the WPQ or constituents or physical characteristics not permitted by the terms of the WPQ which would increase the hazard, risk or costs assumed by ESII in connection with its performance hereunder.

f. Prior to commingling and interment of the Industrial Waste Material, ESII shall have the right to reject Industrial Waste Material which, in ESII's sole opinion and judgement, is materially non-conforming.

g. Rejected Industrial Waste Material shall be promptly returned to the point of origin as set forth on the manifest, in which event all reloading costs, all transportation costs, to and from the Facility, and any demurrage charges shall be for Customer's account.

h. If non-conforming Industrial Waste Material can be handled by ESII at the Facility, but at additional cost to Customer, ESII shall not proceed to dispose of such non-conforming Industrial Waste Material until ESII has notified Customer that the Industrial Waste is non-conforming and has provided Customer with the cost of disposing of non-conforming waste and Customer has authorized ESII to proceed with disposal at the new cost. However, if such authorization is not received either orally or in writing within three (3) hours after the notice of non-conformance has been communicated by telephone, ESII reserves the right to immediately reject such non-conforming Industrial Waste Material and such non-conforming Industrial Waste Material shall be promptly returned to the point of origin as set forth on the manifest. In the event of such rejection, all loading costs, all transportation costs to and from the Facility, and any demurrage charges incurred, while awaiting such authorization shall be for Customer's account. Customer's oral authority to proceed with disposal shall be immediately confirmed in writing by Customer, but the failure to do so shall not impair the effectiveness of the oral authority.

i. Upon ESII's rejection of non-conforming Industrial Waste Material, title to the rejected Industrial Waste Material, together with all responsibility and liability in connection therewith, shall be deemed to revest in Customer.

6. COMPENSATION.

For the services performed hereunder, Customer shall pay ESII at the rates and in accordance with the payment terms set forth in Exhibit "B," attached hereto and incorporated herein (the "Compensation Schedule"). ESII shall invoice Customer for all charges which

accrue pursuant to this Agreement within twenty (20) days from the date the Industrial Waste Material was received and disposed of at the Facility. Customer shall pay ESII's invoice within thirty (30) days from the date of the invoice. Customer shall pay ESII interest on overdue balances at the rate of 1.5% per month.

7. ADJUSTMENTS TO COMPENSATION.

a. The parties agree that, if at any time after the date of execution of this Agreement, any governmental entity or court shall adopt, issue or promulgate any law, order, rule, regulation, guide-line, notice, tax, charge, fee, assessment, and/or directive of any nature which requires ESII to make additional expenditures in plant or equipment and/or incur additional costs in connection with its performance of services hereunder, the compensation rates set forth in the Compensation Schedule, including escalation, if any shall be subject to increase at the sole discretion of ESII. ESII shall deliver written notice of such rate increase to Customer at least thirty (30) days prior to the effective date of such increase and such notice shall include:

(i) a statement indicating the amount of the increase; and

(ii) the effective date of the increase.

b. At any time during the thirty (30) day notice period preceding a rate increase Customer may notify ESII in writing of the unacceptability of such rate increase. Thereupon, either party hereto shall have the right to terminate this Agreement without penalty or further liability upon fifteen (15) days prior written notice of the intent to terminate. The announced rate increase shall be ineffective in the event of such termination.

8. WARRANTIES OF ESII.

ESII expressly warrants:

a. That ~~is~~ it possesses the business, professional and technical expertise to handle, process and dispose of the Industrial Waste Material; and

b. That ~~is~~ it possesses the equipment, plant and employee resources to perform this Agreement, and

c. That it has obtained and shall maintain during the term of this Agreement all permits, approval and licenses required to handle and dispose of industrial wastes, including the Industrial Waste Material.

d. THE EXPRESS WARRANTIES OF ESII SET FORTH IN THIS SECTION ARE EXCLUSIVE AND ALL OTHER WARRANTIES OF ANY KIND, WHETHER WRITTEN, ORAL, EXPRESS, STATUTORY OR IMPLIES (WHETHER ARISING UNDER LAW OR EQUITY OR CUSTOM OF USAGE), INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXCLUDED FROM THIS AGREEMENT.

9. WARRANTIES OF CUSTOMER.

Customer expressly warrants:

a. That, notwithstanding the sampling and analysis performed by ESII, the Industrial Waste Material delivered to and accepted by ESII shall conform to the description thereof contained in the applicable WPQ; and

b. That Customer is not prohibited by any federal, state and local law, rule or regulation from transferring exclusive possession and control of the Industrial Waste Material to ESII; and

c. That Customer has obtained and shall maintain in completed form during the term of this Agreement all permits, licenses, manifests or approvals required by any federal, state or local law, rule or regulation required for the delivery by Customer of the Industrial Waste Material for disposal at the Facility, and required to otherwise carry out its obligations under this Agreement; and

d. That the Industrial Waste Material shall be prepared for shipment, packaged and labeled in containers specified by applicable rules and regulations of the U.S. Department of Transportation, the U.S. Environmental Protection Agency or any successors thereto and/any federal, state or local agency with regulatory jurisdiction, as the case may be; and

e. THE EXPRESS WARRANTIES OF CUSTOMER SET FORTH IN THIS SECTION ARE EXCLUSIVE AND ALL OTHER WARRANTIES OF ANY KIND, WHETHER WRITTEN, ORAL, EXPRESS, STATUTORY OR IMPLIED (WHETHER ARISING UNDER LAW OR EQUITY OR CUSTOM OF USAGE), INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXCLUDED FROM THIS AGREEMENT.

10. COMPLIANCE WITH LAWS.

a. ESII shall comply with all applicable laws, ordinances, decisions, orders, rules and regulations of the United States and of any state, county, or local government, or any other governmental agency with regulatory jurisdiction, including without limitation, any laws

pertaining to the handling and disposal of the Industrial Waste Material. Customer shall use its best efforts to provide all necessary information to assist ESII to obtain and maintain all permits and consents required by any governmental agency having or asserting jurisdiction over the Facility or the services to be performed hereunder.

b. Customer shall comply with all applicable laws, ordinances, decisions, orders, rules and regulations of the United States and its agencies and of any state, county, or local government or other governmental agency with regulatory jurisdiction, including without limitation, any laws pertaining to the generation, transportation, handling and disposal of the Industrial Waste Material.

11. FORCE MAJEURE.

Any delays in or failure of performance of either party hereto shall not constitute a default under this Agreement or give rise to any claim for damages to the extent such delays or failure of performance are caused by circumstances beyond the reasonable control of the party thereby affected, including but not limited to, acts of God, fire, flood, windstorm, explosion, accidents, riot, sabotage, strikes or other concerted work stoppages of labor, lockouts, inability to obtain raw material, equipment or transportation, or the compliance with any generic order or request of any governmental authority, loss of any necessary utility (water, electricity, gas, etc.) or the revocation of any permit issued by any governmental agency which is required for the party's performance hereunder. In the event a force majeure condition arises which wholly or in part prevents either party hereto from performing hereunder, the affected party shall inform the other in writing within fifteen (15) working days

from the commencement of the force majeure condition; provided such notice is given, the obligation affected by a force majeure condition shall be automatically extended for a time equal to the delay caused by the intervention of such force majeure condition. Notwithstanding anything herein contained to the contrary, in no event shall the term of this Agreement as set forth in Section 16 hereof be extended by reason of the operation of this section.

12. INSURANCE.

a. ESII shall maintain for the term of this Agreement (at its own expense unless otherwise specifically set forth) the following insurance:

COVERAGE	LIMITS OF LIABILITY
Workers Compensation	Statutory
Employer's Liability	$100,000 each occurrence
Comprehensive General Liability (Bodily Injury & Property Damage)	$2,000,000 combined single limit $4,000,000 aggregate
Comprehensive Automobile Liability (Bodily Injury & Property Damage)	$2,000,000 combined single limit
Environmental Impairment	$3,000,000 each occurrence
Liability for Sudden and Non-Sudden Occurrences	$6,000,000 annual aggregate

b. Customer shall maintain for the term of this Agreement (at its own expense unless otherwise specifically set forth) the following insurance:

COVERAGE	LIMITS OF LIABILITY
Workers Compensation	Statutory
Employer's Liability	$100,000 each occurrence
Comprehensive General Liability (Bodily Injury & Property Damage	$2,000,000 combined single limit
Comprehensive Automobile Liability (Bodily Injury & Property Damage)	$2,000,000 combined single limit

c. Additional Insurance Provisions

(i) Each party shall furnish to the other party certificates of insurance evidencing the insurance coverages as above required. Every certificate of insurance required herein shall be endorsed to provide the other party with thirty (30) days written notice of cancellation.

(ii) The respective Comprehensive General Liability insurance shall include an endorsement covering such party's contractual liability with limits not less than those set forth above.

13. THIRD PARTY LIABILITY INDEMNIFICATION BY ESII.

a. ESII shall indemnify, defend and hold harmless Customer and its employees, officers, agents and subcontractors from and against all liability, claims, suits, losses, damages, costs and demands, including legal expenses and attorney's fees connected therewith, on account of personal injury, including death, or property damage, sustained by any person or entity not a party to this Agreement, arising out of or connected with the

performance of the Agreement where such injury, death, or damage is caused by the willful misconduct or the sole or contributory negligence of ESII or its subcontractors; provided that such injury, death or damage is not occasioned by the sole negligence of Customer or its agents, subcontractors, employees or officers; and provided further, that ESII's liability under this indemnity provision shall be limited to and not exceed the insurance coverage and limits of liability which ESII secured pursuant to Section 12 hereof.

b. In the event that any claim made by a third party for damage to property or persons results from the joint negligence of ESII, its employees, officers, agents and subcontractors and Customer, generator or its employees, officers, agents or subcontractors, then ESII shall indemnify and save harmless Customer and its employees, officers, agents and subcontractors for, but only for, that percentage of any resulting claims or judgment directly attributable to the negligence of ESII, its employees, officers, agents and subcontractors. ESII shall be reimbursed by Customer for the percentage of reasonable legal fees and legal expenses (including court costs) in direct proportion to the percentage of the claims or judgment directly attributable to the contributory negligence of Customer, or its employees, officers, agents and subcontractors.

c. The foregoing indemnification obligation of ESII is conditioned upon ESII's prompt receipt of notice of any claims brought by third parties against Broker or its employees, officers, agents and subcontractors and Broker's good faith cooperation with ESII in the defense of such claims.

14. INDEMNIFICATION BY CUSTOMER.

a. Customer shall indemnify and hold harmless ESII and its employees, officers, agents and subcontractors from and against all liability, claims, suits, losses, damages, fines, penalties or costs, including legal expenses and attorney's fees connected therewith, on account of personal injury, including death, or property damage, including but not limited to damage to the Facility, contamination of or adverse effects on the environment, or any violation or alleged violation of statutes, rules or regulation of any governmental agency, caused by or resulting from the negligent acts or omissions or willful misconduct of Customer or its subcontractors, employees, officers and agents in the performance of this Agreement or Customer's breach of any obligation or warranty of this Agreement.

b. In the event that any claim made by a third party for damage of property or persons results from the joint negligence of Customer, its employees, officers, agents or subcontractors and ESII, and its employees, officers, agents or subcontractors, then Customer shall indemnify and save harmless ESII and its employees, officers, agents and sub-contractors for, but only for that percentage of any damages, claims or judgment directly attributable to the negligence of Customer, or its employees, officers, agents and subcontractors. Customer shall be reimbursed by ESII for the percentage of reasonable legal fees and legal expenses (including court costs) in direct proportion to the percentage of the damages, claims or judgment directly attributable to the contributory negligence of ESII, its employees, officers, agents and subcontractors.

c. The foregoing indemnification obligation of Customer is conditioned upon Customer's prompt receipt of notice of any claims brought by third parties against ESII or its employees, officers, agents and subcontractors and ESII's good faith cooperation with Customer in the defense of such claims.

15. TERM OF AGREEMENT.

Unless sooner terminated, this Agreement shall be effective for a period of one (1) year from the date of execution hereof and shall automatically renew for successive one year periods unless terminated in writing by either party upon thirty (30) days notice prior to the anniversary date hereof. Expiration or termination of this Agreement, for any cause, shall not relieve Customer of liability for payment of sums due or to become due ESII for service performed hereunder prior to the effective date of expiration or termination.

16. TERMINATION FOR CONVENIENCE.

Either party hereto shall have the right to terminate this Agreement for convenience without penalty at any time, upon giving sixty (60) days prior written notice of such termination to the other party.

17. CUSTOMER'S RIGHT TO TERMINATE FOR DEFAULT.

a. In the event that ESII shall file a petition in bankruptcy, or shall make a general assignment for the benefit of its creditors, or if a petition in bankruptcy shall be filed against ESII or a receiver appointed on account of its insolvency, or if it shall default in the performance of any express obligation to be performed by it under this Agreement and shall

fail to correct such default (or if immediate correction is not possible, shall fail to commence and diligently continue effective action to correct the default), within ten (10) days following receipt of written notice thereof from Customer, Customer may, without prejudice to any other rights or remedies Customer may have, cause further payments to ESII to be held in abeyance and terminate this Agreement by written notice to ESII specifying the date of termination.

b. A waiver by Customer of any one default of ESII shall not be considered to be a waiver of any subsequent default of ESII, nor be deemed to amend or modify the terms of this Agreement.

18. ESII'S RIGHT TO TERMINATE FOR DEFAULT.

a. In the event that Customer shall file a petition in bankruptcy, or shall make a general assignment for the benefit of its creditors, or if a petition in bankruptcy shall be filed against Customer or a receiver appointed on account of its insolvency, or if it shall default in the performance of any express obligation to be performed by it under this Agreement and shall fail to correct such default (or if immediate correction is not possible with respect to any default other than a monetary default, shall fail to commence and diligently continue effective action to correct the default) within ten (10) days following receipt of written notice thereof from ESII, ESII may, without prejudice to any other rights or remedies ESII may have, terminate this Agreement by written notice to Customer specifying the date of termination.

b. With respect only to breach of Customer's warranties as set forth in Section 9, ESII may, regardless of any corrective action taken or to be undertaken by Customer, and at ESII's sole election, terminate this Agreement forthwith, without prejudice to any other rights or remedies ESII may have, by delivering written notice of such termination to Customer, if five (5) percent or more (by weight) of the Industrial Waste Material received from Customer during the first full calendar year quarterly period of the term of this Agreement or any succeeding calendar year quarterly period thereafter does not conform to Customer's warranties as set forth in Section 9, and as a result of non-conformance, the Industrial Waste Material was not disposed of at the Facility.

c. The waiver by ESII of any one default of Customer shall not be considered to be a waiver of any subsequent default of Customer, nor be deemed to amend or modify the terms of this Agreement.

19. ASSIGNMENT.

Customer shall not assign, sublet, transfer, nor convey this Agreement or any monies due or to become due to it hereunder without prior consent of ESII, and any attempt to so assign and sublet shall be void.

20. INDEPENDENT CONTRACTOR.

a. ESII is and shall be an independent contractor in the performance of the services covered by this Agreement maintaining complete control of its employees and operations. Neither ESII nor anyone employed by ESII shall be the agent, representative,

employee or servant of Customer in the performance of the services covered by this Agreement.

b. Customer is and shall be an independent contractor hereunder, and acknowledges that this Agreement does not constitute Customer the agent or legal representative of ESII for any purpose whatsoever. Customer is not granted any right or authority to assume or to create any obligation or responsibility express or implied on behalf of or in the name of ESII or to bind ESII in any manner whatsoever.

21. NOTICES.

All notices, requests, demands and other communications hereunder shall be in writing or by telephone. All written notice required hereunder shall be given either by personal delivery, by mailing by United States Registered or Certified Mail, return receipt requested, postage prepaid, or by other documented communication properly addressed as follows, or to such other addresses as either party may designate in accordance herewith:

If to Customer:

_____

_____

If to ESII:

Envirosafe Services of Idaho, Inc.
2710 Sunrise Rim Road, Suite 100
P.O. Box 16217
Boise, Idaho 83705
Attention: Vice President and
General Manager

Notices shall be deemed to be given upon delivery or, if mailed, upon the receipt thereof by the party concerned.

22. MISCELLANEOUS.

a. This Agreement shall be construed and governed in accordance with the substantive laws of the State of Idaho excluding choice of law rules. This Agreement constitutes the entire agreement between ESII and Customer. All previous representations relative thereto either written or oral, are hereby annulled and superseded. No modification shall be binding on ESII unless it shall be in writing and signed by an authorized officer. Paragraph headings are for the convenience of the parties only and are not to be construed as part of this Agreement. The warranties contained herein shall survive the expiration or termination of this Agreement, and shall not be impaired or rendered inoperative by any investigation thereof.

b. If any provision contained herein is held to be unenforceable by a court of law or equity, this Agreement shall be construed as if such provision did not exist, and the unenforceability of such provision shall not be held to render any other provision of this Agreement unenforceable.

c. Customer may use its standard business forms (such as purchase orders, acknowledgements or vouchers) to administer this Agreement, but use of such forms shall be for convenience purposes only and all provisions, terms and conditions contained in or

on such forms (except those provisions specifying quantity of Industrial Waste Material being disposed of and the dates of delivery and disposal related thereto) shall be deemed stricken and null and void.

IN WITNESS WHEREOF, ESII and Customer have each caused this Agreement to be executed by its duly authorized representatives as of the day and year set forth above.

_____ (Customer)	Envirosafe Services of Idaho, Inc.
_____ Signature	_____ Signature
_____ Name	_____ Name
_____ Title	_____ Title
_____ Date	_____ Date

ABBREVIATIONS AND ACRONYMS

AMC	U.S. Army Materiel Command
CDD	complete discharge device
CLIN	contract line item number
CONUS	Continental United States
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethylene
DODAAC	Department of Defense Activity Address Code
DRMO	Defense Reutilization and Marketing Office
DRMS	Defense Reutilization and Marketing Service
EP	extraction procedure
FORSCOM	U.S. Army Forces Command
FY	fiscal year
HM	hazardous material
HW	hazardous waste
IDMS	Integrated Disposal Management System
MACOMs	Major Commands
MSCs	Major Subordinate Commands
PCB	polychlorinated biphenyls
PCP	pentachlorophenol
POLs	petroleum, oils, and lubricants
PPM	parts per million
RCRA	Resource Conservation and Recovery Act
RFPs	Requests for Proposals
RTDS	Reutilization, Transfer, Donation, and Sales
SA	service agreement
STB	super tropical bleach
TRADOC	U.S. Army Training and Doctrine Command
TSD	treatment, storage, and disposal
USACE	U.S. Army Corps of Engineers

USACERL DISTRIBUTION

Chief of Engineers
ATTN: CEHEC-IM-LH (2)
ATTN: CEHEC-IM-LP (2)
ATTN: CERD-L
ATTN: CECC-P
ATTN: CECW
ATTN: CECW-O
ATTN: CECW-P
ATTN: CECW-RR
ATTN: CEMP
ATTN: CEMP-C
ATTN: CEMP-E
ATTN: CERD
ATTN: CERD-C
ATTN: CERD-M
ATTN: CERM
ATTN: DAEN-ZCZ
ATTN: DAEN-ZCI
ATTN: DAEN-ZCM
ATTN: DAEN-ZCE
ATTN: ENVR-EH

CEHSC
ATTN: CEHSC-ZC 22060
ATTN: CEHSC-F 22060
ATTN: CEHSC-TT-F 22060
ATTN: DET III 79906

US Army Engineer Districts
ATTN: Library (41)

US Army Engr Divisions
ATTN: Library (14)

US Army Europe
ODCS/Engineer 09403
ATTN: AEAEN-FE
ATTN: AEAEN-ODCS
V Corps
ATTN: DEH (11)
VII Corps
ATTN: DEH (16)
21st Support Command
ATTN: DEH (12)
USA Berlin
ATTN: DEH (9)
Allied Command Europe (ACE)
ATTN: ACSGEB 09011
ATTN: SHIHB/Engineer 09055
USASETAF
ATTN: AESE-EN-D 09019
ATTN: ACSEN 09168
ATTN: AESE-VE 09168

8th USA, Korea
ATTN: DEH (19)

ROK/US Combined Forces Command 96301
ATTN: EUSA-HHC-CFC/Engr

Ft. Leonard Wood, MO 65473
ATTN: Canadian Liaison Officer
ATTN: German Liaison Staff
ATTN: British Liaison Officer (2)
ATTN: French Liaison Officer

USA Japan (USARJ)
ATTN: DEH-Okinawa 96331
ATTN: DCSEN 96343
ATTN: HONSHU 96343

Area Engineer, AEDC-Area Office
Arnold Air Force Station, TN 37389

416th Engineer Command 60623
ATTN: Facilities Engineer

US Military Academy 10996
ATTN: Facilities Engineer
ATTN: Dept of Geography & Environmental Engr
ATTN: MAEN-A

AMC - Dir., Inst., & Svcs.
ATTN: DEH (23)

DLA ATTN: DLA-WI 22304

DNA ATTN: NADS 20305

FORSCOM (28)
FORSCOM Engr, ATTN: Spt Det. 15071
ATTN: Facilities Engineer

HSC
Walter Reed AMC 20307
ATTN: Facilities Engineer
Ft. Sam Houston AMC 78234
ATTN: HSLO-F
Fitzsimons AMC 80045
ATTN: HSHG-DEH

INSCOM - Ch, Inst. Div.
Vint Hill Farms Station 22186
ATTN: IAV-DEH
Arlington Hall Station 22212
ATTN: Engr & Hsg Div

USA AMCCOM 61299
ATTN: Library
ATTN: AMSMC-IS

Military Dist of Washington
ATTN: DEH
Fort Lesley J. McNair 20319
Fort Myer 22211
Cameron Station (3) 22314

Military Traffic Mgmt Command
Bayonne 07002
Falls Church 20315
Sunny Point MOT 28461
Oakland Army Base 94626

NARADCOM, ATTN: DRDNA-F 01760

TARCOM, Fac, Div. 48090

TRADOC (19)
HQ, TRADOC, ATTN: ATEN-DEH 23651
ATTN: DEH

TSARCOM, ATTN: STSAS-F 63120

USAIS
Fort Ritchie 21719
Fort Huachuca 85613
ATTN: Facilities Engineer (3)

WESTCOM
Fort Shafter 96858
ATTN: DEH
ATTN: APEN-A

SHAPE 09055
ATTN: Survivability Sect. CCB-OPS
ATTN: Infrastructure Branch, LANDA

HQ USEUCOM 09128
ATTN: ECJ 4/7-LOE

Fort Belvoir, VA
ATTN: Australian Liaison Officer 22060
ATTN: Water Resource Center 22060
ATTN: Engr Studies Center 22060
ATTN: Engr Topographic Lab 22060
ATTN: ATZA-TE-SW 22060
ATTN: CECC-R 22060

CECRL, ATTN: Library 03755

CEWES, ATTN: Library 39180

HQ, XVIII Airborne Corps and
Ft. Bragg 28307
ATTN: AFZA-DEH-EE

Chanute AFB, IL 61868
3345 CES/DE, Stop 27

AMMRC 02172
ATTN: DRXMR-AF
ATTN: DRXMR-WE

Norton AFB, CA 92409
ATTN: AFRCE-MX/DE

Tyndall AFB, FL 32403
AFESC/Engineering & Service Lab

NAVFAC
ATTN: Division Offices (11)
ATTN: Facilities Engr Cmd (9)
ATTN: Naval Public Works Center (9)
ATTN: Naval Civil Engr Lab 93043 (3)
ATTN: Naval Constr Battalion Ctr 93043

Engineering Societies Library
New York, NY 10017

National Guard Bureau 20310
Installation Division

US Government Printing Office 20401
Receiving/Depository Section (2)

US Army Env. Hygiene Agency
ATTN: HSHB-ME 21010

American Public Works Association 60637

Nat'l Institute of Standards & Tech 20899

Defense Technical Info. Center 22304
ATTN: DTIC-FAB (2)